



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

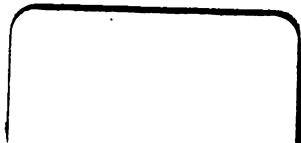
- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

No.

BOSTON
MEDICAL LIBRARY
ASSOCIATION,
19 BOYLSTON PLACE.

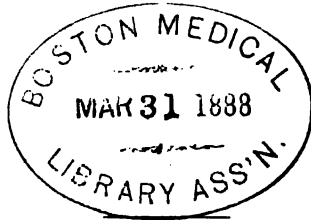


THE
MEDICAL ANALECTIC

A
MONTHLY EPITOME OF PROGRESS IN ALL DIVISIONS
OF MEDICO-CHIRURGICAL PRACTICE

EDITED BY

R. W. AMIDON, M.D.



VOL. III.

NEW YORK & LONDON
G. P. PUTNAM'S SONS
The Knickerbocker Press
1886

CATALOGUED,

E. H. B.

714

COPYRIGHT BY

G. P. PUTNAM'S SONS

1886

Press of
G. P. PUTNAM'S SONS
New York

996

THE MEDICAL ANALECTIC

MONTHLY EPITOME OF PROGRESS IN ALL DIVISIONS OF
MEDICO-CHIRURGICAL PRACTICE

EDITED BY
R. W. AMIDON, M.D.

VOL. III., No. I.

January, 1886.

WHOLE No. 25.

THERAPEUTICS.

NEW HYPNOTICS.

Hypnone.—The past year has not been marked by many extraordinary therapeutical advances. There is, however, always a longing on the part of the profession for a new hypnotic which combines the good and lacks the bad qualities of all our present hypnotic drugs. The ideal medicament, which will be devoid of danger and possessed of salutary and pleasant physiological effects only, has not yet been discovered, and it's very safe to say it never will. The laudable desire to improve on our old hypnotics leads, however, to much research in this special field of therapeutics.

One of the latest drugs of this category is hypnone, studied by Dujardin-Beaumez and Bardet¹ and of which the former investigator says :

“Among the different products of the great aromatic series which we are studying at the present time, in their chemical constitution and therapeutic action, is found a mixed acetone, having for formula $C_6H_5COCH_3$; it is *phenyl-methyl acetone*, *aceto-phenone*. This body had already been studied by Popof and Mencki, who observed that this acetone is transformed in the economy into carbonic and benzoic acids, and eliminated by the urine in the state of hippurates.

“We have found in this acetone remarkable hypnotic properties; hence we propose to substitute for its compound name the shorter appellation of *hypnone*.

“Administered to the adult in the dose of from two to four drops, hypnone causes sleep, and in the insomnia determined by alcoholism its effects seem superior to those of chloral and paraldehyde.

“When you inject under the skin of

guinea-pigs fifty centigrammes to a gramme of hypnone in a state of purity, you determine insensibility, then a comatose state, in which the animal succumbs in the course of five or six hours. Hypnone is, as you see, a body which is liquid at the ordinary temperature, having a very strong odor which resembles that of cherry-laurel, and new-mown hay; it is not soluble in water, and therefore we have given it dissolved in glycerine and enclosed in capsules.

“Our patients have not experienced any unpleasant effects from it, save always the disagreeable odor of the breath which results from the elimination of the hypnone by the lungs.”

M. Laborde² has given hypnone subcutaneously in forty-five-grain doses, without producing any effect in a dog. Given by the stomach, the animal vomits it. Given intravenously it produces a speedy and profound sleep, with snoring, anæsthesia, and analgesia. In this instance speedy death invariably ensues. On autopsy there are found hemorrhagic patches in the lung, bloody infiltration of the kidneys, bloody and albuminous urine in the bladder.

Given intravenously, it produces a fall of arterial pressure, an acceleration and a weakening of the cardiac pulsation. Subcutaneous injections produce local effects. Introduced into the eye, hypnone causes an anæsthesia of the cornea, and also intense conjunctivitis. Dubois has stated that patients under the influence of hypnone are anæsthetized more easily by chloroform.

Hyoscine.—Dr. H. M. Wetherill, among others, has practically tested hyoscine and its salts. He states³ that the physiological effect of a full dose of hyoscine, say gr. $\frac{1}{16}$, is manifested within twenty minutes. These are—brief, transitory bewilderment;

¹ *Gaz. des Hôp.*, Dec. 15, '85.

² Hyoscine Hydrobromate.—*Phil. Med. Times*, Dec. 26, '85.

³ On Local Anæsthetics *Medical News*, Jan. 2, '85.

marked interference with co-ordination; widely dilated pupils; slow, regular, very full pulse; dryness of the throat; relaxation of the vocal cords; very slow, full respirations, sometimes becoming Cheyne-Stokes; marked suffusion of the face and of the general surface of the body; a slight rise in temperature; and free diaphoresis, which does not seem to restore normal temperature. There is general muscular relaxation and a sense of wretchedness. Sleep usually follows, which continues from one to five hours, if the dose is given in daytime and the patient is not put to bed. This amount, administered at night, would be followed by sleep lasting for eight or ten hours. The mydriatic effect is rather transient, but usually persists through an entire day. The pulse is slowed about twenty beats per minute, and this effect gradually wears away during eight or ten hours, and is often followed by a very variable period of pulse-acceleration, which seems to be simply a reactionary hastening of the pulse to restore the disturbed balance of the circulation. The normal rate of respiration is gradually restored through a period ranging from three to five hours.

The rise in temperature is not an invariable result, and is frequently small,—seldom exceeding one and a half degrees,—and the balance of temperature is usually restored within two or three hours. Dryness of the throat often persists through an entire day. Suffusion of the surface of the body is usually transitory. In moderate and small doses the effect is, of course, proportionate to the amount employed; but the same general symptoms are present, and the patient is quieted accordingly. Interference with the appetite is sometimes observed. It does not seem to act upon the bowels nor upon the kidneys.

Hyoscine is not always well borne; occasionally the following symptoms have followed the use of a moderate dose: nausea, vomiting, anorexia, dysuria, syncope, with small, rapid, irregular pulse, and with symptoms of partial paralysis of the pneumogastrics. This untoward condition occurred in a case of epileptic mania, in one of parietic dementia, in one of chronic dementia with excitement, and in one of acute hysterical mania. All of my personal experience of the action of hyoscine has been among females, and they are, I think, more susceptible to its action than are

males. This is generally true of many drugs. Hyoscine is a spinal sedative of considerable activity. It had a decided influence over the spasms of a case of tetanus,—a powerful man, whose life it certainly prolonged for some hours, and who died, not from convulsions, but from high temperature: this was, I think, 108° F. before death; but *post mortem* it rose to 116° F. This case was not mine; but I know that the observations were accurately taken with a corrected thermometer.

Is it best to give the remedy hypodermically or by the mouth? It acts almost immediately and in rather less dose by the former method; yet we have preferred usually to give it by the mouth, as it acts very promptly when taken into the stomach, even in very small doses, and this method offers no shock to an excited or timorous patient.

Among the physiological effects of hyoscine, one or two observers claim to have frequently noticed a primary acceleration of the pulse-rate previous to its becoming slow and full. This I have not found to be the case save in two instances, and even in these two cases the effect was not invariable. There is a source of possible error to be here taken into consideration,—that the mere act of feeling the pulse or even addressing some persons causes a marked acceleration of the pulse, which may persist for some time should the patient be excited, timorous, apprehensive, or nervous.

From three observers of the action of hyoscine in another State comes the report that their anticipations of the good effects of the drug had not been realized after fair trial of an article which they thought was reliable; but there is some reasonable ground for doubt that the substance employed emanated from Merck's laboratory.

Dr. H. C. Wood has used it in melancholia, and says¹ in a clinical lecture: "We have now tested in this hospital the hydrobromate of hyoscine upon a sufficient scale to enable us to speak with authority. When given hypodermically in doses of $\frac{1}{8}$ to $\frac{1}{4}$ of a grain it acts almost invariably in melancholia, with agitation, as an invaluable soporific and calmative. I have used it myself, also, in a number of private cases, and in the University Hospital service, and there seems to me no doubt as to its great

¹ "Melancholia," *Therap. Gaz.*, Dec. 15, '85.

and peculiar value. When administered by the mouth it acts with much less certainty; and as its hypodermic use is never followed by any local irritation, and as it is often much easier to give a hypodermic injection to a violent maniac than to get him to take medicine, it is best administered hypodermically. Although in most cases larger doses are required, it is not safe to begin with more than $\frac{1}{16}$ of a grain."

Dr. L. H. Taylor communicates, in the same issue of the journal its effect on a case of puerperal mania. He was called to see Mrs. S. in March last, and found her excited and irrational, though not raving. Husband and attendants said she had not slept any at all the previous night or day, and had slept almost none at all for three days past. She was then in her seventh month of pregnancy, and had previously shown no signs of insanity, nor was it ascertained that any of her ancestors had been subject to insanity. As she was extremely wakeful, and the medicine prescribed for this difficulty seemed to be of no avail, he at once ordered hyoscine hydrobromate, gr. $\frac{1}{8}$. The drug could not be obtained until late the following day, and then in granules of $\frac{1}{8}$ gr. Of these two were given, followed by several hours of sleep. Her husband stated that she slept quietly nearly all night.

Dr. J. B. Andrews (*Am. Four. Insanity*, Oct., 1885)¹ has had exceptional advantages for testing its action. He reports in all twenty-two cases in which hyoscine has been employed. Of these, eleven are of melancholia, six of acute mania, one of chronic and one of paroxysmal mania, one of mania with epilepsy, one of dementia, and one of acute chorea.

The limits of the doses were from the $\frac{1}{16}$ th to $\frac{1}{8}$ d of a grain, in all of which he found it a perfectly safe remedy. It was given by the mouth in twenty of the cases, and in two by hypodermic injection. . . . The physiological effect of the drug was experienced in from fifteen minutes to two hours, but the average time was less than an hour. The pupils were dilated in most of the cases, but the disturbance of vision and the dryness of the fauces, or the inhibition of muscular movements, were only complained of in two cases mentioned, but in many of them there was such a degree of mental disturbance that the absence

of complaint is of little value in arriving at a knowledge of the existence of those unpleasant effects. There was no nausea, and in the few cases in which it was given sufficiently long to produce the results, there was no disturbance of the appetite with the consequent loss of flesh, as is sometimes experienced in the continued use of hyoscyamia. There is also less disturbance of the vaso-motor system than is found in the use of that alkaloid.

The same observer has experimented with **Theine**, or, as he terms it, camellia. He found that it reduced the pulse ten to twenty-four pulsations per minute, increased its force and volume, and raised the arterial tension. The effects began in a half hour to an hour after its administration, were maintained at the maximum about an hour, and then began to decline, the normal being restored in about three hours.

Dr. Thomas J. Mays,² after a study of the same subject, concludes that theine is a powerful anodyne without producing any intoxication of the higher nerve centres, which is so common with morphia and all other agents belonging to this class. Its influence is both quick and persistent, and it manifests an almost exclusive affinity for the sensory nerves. It relieves pain by acting from the centre toward the periphery, and showing its effects but very seldom above the seat of injection. This is precisely in harmony with what was found in the experiments on the lower animals. In $\frac{1}{16}$ -, $\frac{1}{8}$ -, and even $\frac{1}{4}$ -grain doses it is entirely free from dangerous consequences—the only inconvenience which it causes is a slight but transient burning at the point of introduction. He uses a one-per-cent. watery solution of Merck's preparation, ten minims of which equal one fifth of a grain of theine. Larger doses are required in some individuals in order to bring out its characteristic action.

Paraldehyde still has many adherents and believers, who claim for it power to produce a natural sleep with unpleasant after-effects. It is, however, locally irritant, and imparts a bad odor to the breath, which lasts several hours. It is claimed not to act, like chloral, deleteriously on heart.

Cervello and Valenti (in the *Ann. di*

¹ *Am. Four. Med. Science*, Jan., 1886.

² "The Therapeutic Action of Theine; a New Analgesic."—*The Med. News*, Dec. 12, 1885.

Chim. Med. Farmaceut., Aug. 1885) have studied the combined effects of morphia and paraldehyde. Morphia increases the effects of paraldehyde, as it does those of chloroform and chloral. It renders small, inefficient doses of paraldehyde active. The author found that grain $\frac{1}{4}$ of morphia, and gr. xxii. of paraldehyde, when given separately to a rabbit weighing four pounds, produced no hypnotic effect; but the same quantities given together caused deep sleep, lasting for several hours. Their simultaneous action was found to increase the frequency of the heart; the arterial blood pressure is maintained, respiration being less frequent than in normal sleep. They think the mixture does not depress the respiration or heart, but acts rather as a heart-tonic. The mixture unites an analgesic and an hypnotic, and thus is indicated in many pathological conditions when neither morphia nor paraldehyde can be used alone.—*London Med. Record*, Dec. 15, 1885.

Physiological Action of American Aconites.—Dr. Roberts Bartholow communicates a preliminary note of experiments with aconitum Fischeri, to determine its physiological action.

The preparation used was a tincture made by Prof. J. U. Lloyd, having the strength of the officinal tincture of aconite. The alcohol it contained was evaporated on a water-bath.

He compared the actions of aconitum Fischeri and aconitum napellus. Notwithstanding the botanical affinities, and, in some respects, the physiological, there are marked and fundamental differences.

Aconitum napellus affects sensibility, and lowers the irritability of the sensory nerves. Aconitum Fischeri does not affect the tactile or pain sense, although it causes the characteristic tingling, and it does not affect the irritability—the power to perceive and transmit peripheral impressions—of the sensory nerves.

Aconitum napellus paralyzes the end organs of the motor nerves, the trunks, and, ultimately, the motor portion of the cord. Aconitum Fischeri does not affect the contractility of muscles or the irritability of the motor nerve, but paralyzes the motor centres of the cord.

Both cause death by paralysis of respiration.

They affect the heart in opposite modes. Aconitum napellus stimulates the vagus

roots and slows the heart, while aconitum Fischeri paralyzes the pneumogastric and increases the force and number of the cardiac pulsations. Aconitum napellus, after a brief, stimulating action, paralyzes the vaso-motor centre in the medulla and greatly lessens the blood pressure. Aconitum Fischeri rather stimulates the vaso-motor centre and does not lower the blood pressure.

Many points regarding the actions of aconitum Fischeri remain to be determined. The writer intends to continue his study, as to the practical therapist, aconitum Fischeri offers a most interesting and fruitful subject for investigation of its remedial powers.—*College and Clinical Record*, Jan. 1, 1886.

Hydrofluoric Acid and its Therapeutic Application.—M. Chevy having experimented with hydrofluoric acid draws the following conclusions:

1st. The vapors of the acid mixed with air produce no disturbance of respiration, being inhaled without inconvenience in the proportion of 1 to 1500.

2d. The acid is antiseptic and a powerful anti-ferment. In solutions of 1 to 3000 it stops the fermentation of milk, urine, bouillon, and preserves meat.

3d. The therapeutic use of the acid in pulmonary tuberculosis, diphtheria, and in the dressing of infected wounds, appears to yield results worthy of trial.

4th. Should be used with care if the patient is asthmatic, emphysematous, or subject to hæmoptysis.

The patients are placed in a cabinet and subjected to the vapor of a solution of the acid generated in a leaden dish by an alcohol lamp. The weight of the acid evaporated in each séance is about xv. gr., which makes the mixture in the air about 1 to 25,000.—*Rev. de Thérap.*, Nov. 15, 1885.

CARDIAC STIMULANTS.

Since the rather disappointing results following the therapeutic employment of convallaria, several drugs, whose chief physiological effect is on the heart, have been experimented with and studied. One of the most important of these is,

Adonidine, upon which Dr. J. C. Wilson has recently written a preliminary note¹:

The *Adonis vernalis*, a plant belonging to the natural order Ranunculaceæ, and in-

¹ *Medical News*, Jan. 2, 1886.

digenous in Southern Europe, has long been empirically used in Russia in various affections, and especially in diseases of the heart. Rubnow, of St. Petersburg, in 1879, first made the medicinal properties of this plant the subject of special research. In 1882, Cervello, of Strasburg, succeeded in isolating its active principle. The results of his investigations were published in the *Archives Italiennes de Biologie*, toward the close of the same year. From this date the remedy excited much interest among the physicians of Russia and Germany. In 1884, Lesage¹ made public the results of physiological studies concerning its properties, conducted in the clinical laboratory of Germain Sée, at the Hôtel Dieu. Quite recently Durand,² at the suggestion of Desplats, has made a careful clinical study of the therapeutic action of this substance.

The older preparations were made from the root and leaves of adonis. Rubnow employed an infusion and maceration of the leaves, and an extract has also been used. The active principle of these preparations is the glucoside, isolated by Cervello. This substance is amorphous, colorless, without odor, intensely bitter, slightly soluble, in ether and water and freely so in alcohol. Rubnow employed the leaves in infusion of a strength of 4 to 8 parts to 180 parts of water. The dose of this preparation is a tablespoonful every two hours. Durand employed the glucoside in pills of 0.02 centigramme (one third grain) each, and rarely exceeded this dose.

The physiological effects are analogous to those of digitalis. Cervello, experimenting on frogs, found that 15 milligrammes (one fourth grain) were sufficient permanently to arrest the heart. According to him, adonidine should be employed in a smaller dose than digitaline. The dose urged by Durand is enormously greater than this. Its administration is followed by a series of phenomena which represent three well-characterized phases. First, slowing of the pulse, with elevation of the arterial pressure; second, increased frequency of the pulse, with still further augmentation of blood pressure; third, still further increase of pulse frequency, with decline of blood pressure. Adonidine appears to be without cumulative effect. A

patient of Durand's, aged fourteen years, took by mistake in course of a few hours, 0.20 centigramme (three grains) of adonidine without serious results, other than repeated vomiting and diarrhoea. All observers agree that this remedy, while producing effects closely analogous to those of digitalis in other respects, is without cumulative dangers. Leublnski alone, among those who have used it, finds adonis badly borne, giving rise to vomiting and diarrhoea.

In addition to its action upon the heart, adonidine possesses, in a high degree, diuretic properties. Michaelis has reported a case, in which digitalis having failed to augment the volume of urine, the administration of adonis was followed by an increase of thirty per cent. Altmann, Leyden, and Riegel have also testified to its diuretic properties.³

Durand, as the result of careful, systematic clinical investigations, in five cases affirms that adonidine, in one-third-grain doses, augments the arterial tension, regulates the action of the heart, diminishes the frequency of the pulse, and increases the energy of the cardiac systole. Furthermore, it rapidly induces diuresis. Its effects are prompt, it is well borne, and the indications for its employment are the same as those of digitalis, without the dangers of the latter drug.

As the result of extended comparative studies of the clinical effects of this remedy, and of those of digitalis, caffein, and convallaria, Durand concludes that, notwithstanding the dangers of digitalis, which render necessary both skill and caution in its employment, it must be assigned the first rank among cardiac stimulants; that caffein is indicated in those cases requiring a more prompt effect; and that convallaria has the advantage of producing more persistent diuresis. Convallaria is to be preferred to digitalis, where the stomach is irritable; caffein, in nervous and easily excitable individuals. Although convallaria and caffein are more prompt in their action upon the kidneys, their influence upon the heart's action is less decided than that of either digitalis or of adonidine.

These observations make more extended studies of the action of adonidine desirable. The drug is on the list of Merck, of Darmstadt. Its present price is too high to warrant its general use. But, should the observations thus far made be established, it

¹ *Bull. de la Soc. de Biol.*, 1885.

² De l'action comparée de médicaments cardiaques. Paris, 1885.

³ *Semaine médicale*, June, 1884.

will take permanent place among the available agents in cardiac therapeutics, and an established demand will beget a sufficient supply at reasonable prices, for the *Adonis vernalis* is by no means rare, its rhizome having been employed in commercial black hellebore as an adulterant, and the process by which the glucoside adonidine is extracted being not necessarily expensive. The glucoside, as at present supplied by Merck, does not in all respects correspond to the description of Durand, being of a dark-brown color. In a case under the care of the writer, of old mitral insufficiency, with dilatation, feeble and irregular pulse, œdema of the legs and feet, with diminished, albuminous urine, in which digitalis could not be used, adonidine in doses of one third of a grain, *quatuor in die*, had an excellent effect both upon the circulation and upon the action of the kidneys.

Sparteine.—Sparteine was discovered by Stenhouse, in 1850; Miltz experimented with the sulphate in 1863, and Fick ten years later; it was again taken up in 1880 by Raymond and Bochefontaine, and still later by Laborde, and in 1883 Germain Sée first mentioned it among the cardiac medicaments.

According to the researches of the latter, an aqueous solution of ten centigrammes of sparteine increases in a remarkable manner the force of the heart and pulse; its effects are quite as marked as those of digitalis and convallaria, while being much more prompt and more enduring. If the cardiac rhythm is disturbed, it is almost immediately set right by the action of the medicament; no medicine, says Professor Sée, can be compared with sparteine in its power to regulate intermittent or otherwise disorderly pulsation. It also quickens the heart contractions in grave cases of atony with slowing of the cardiac movements; in this respect, sparteine resembles belladonna.

All these phenomena appear at the end of an hour or two, and the effect is kept up for several hours after the suspension of the medicament. During this time the organic forces are augmented and respiration is improved. Professor Sée's observations concerned six patients, whose pulse was examined by Marey's sphygmograph before, during, and after the administration of the medicament. Of these patients, two were affected with atrophic degeneration of the myocardium, with general debility,

permanent oppression, and excessive feebleness of the heart's impulse, and almost imperceptible pulse. Under sparteine, the tracings recovered the normal type, and continued normal for several days.

Another patient with mitral valvular insufficiency and irregularity of the heart and pulse, was similarly benefited. In a fourth case, the rhythm of the heart was still more disturbed by valvular incompetency; the heart's action, after exhibition of sparteine, became steadied and strengthened. The fifth case was one of dilatation of the heart, caused by arterial degeneration: there was pronounced arrhythmia, with œdema and albuminuria, depression, and slowing of the pulse; "under the influence of sulphate of sparteine, the pulse became regular, the impulse of the heart was augmented, and the movements of the organ accelerated.

The sixth case was one of cardiac asthma, with albuminuria; the pulse was small and irregular: "forty minutes after the ingestion of the remedy, all was changed—the regularity and the force had returned."

Such, according to Professor Sée, are the advantages likely to be derived from sparteine in these grave heart troubles, and this medicine seems indicated whenever the myocardium is weakened, whether from fatty degeneration, or valvular insufficiency, with failure of compensation. "When the pulse is irregular, intermittent, and arrhythmic, sulphate of sparteine rapidly re-establishes the normal type. When the circulation is slackened, this medicament seems immediately to oppose this functional trouble, while maintaining, or even augmenting, the acquired force of the heart muscle."¹—*Boston Med. and Surg. Jour.*, Dec. 17, 1885.

Sparteine.—M. Laborde has studied the physiological action of sparteine, alkaloid of *spartium scoparium*. The formula of sparteine is $C_{15}H_{26}N_2$. He uses the sulphate, which is soluble in water. Grain doses in a rabbit cause inquietude, hyperexcitability, trembling, also clonic and tonic convulsion, signs of asphyxia, and death by stoppage of respiration, the heart continuing to beat. This physiological action of sparteine upon the heart is characteristic of it.

In the frog, in grain doses, the substance produces an enormous strengthening of the cardiac pulsation, so that it was very easy

¹ *Gazette méd. de Paris*, Nov. 28, 1885.

to see the cardiographic tracings. The height of these tracings is three times that of the normal tracing; and this action is of truly remarkable duration, for after two hours it is still perceptible in a dog.—*Gaz. des hôp.*, Nov. 24, 1885.

Terpene.—Reber, in *Der Fortschritt*, June 5, 1885, gives the following directions for making terpine: Four parts of oil of turpentine, three parts of 80-per-cent. alcohol, and one part of nitric acid are mixed in a bottle and frequently shaken, as the mixture on standing continues to separate into two layers. In the course of from fifteen to twenty days the fluid assumes a reddish tint, and large crystals form in rosette-like groups. These, after having been pressed between filter-paper in order to free them from any still adherent oil of turpentine, are again dissolved for recrystallization in 95-per-cent. alcohol, to which a minute quantity of caustic potash has been added for the purpose of removing any trace of free nitric acid. This concentrated solution having finally been filtered and left undisturbed in a low temperature, the formation of white needle-shaped, silky crystals of terpine takes place.—*London Med. Record*, Nov. 16, 1885.

The Therapeutic Properties and Indications of Terpine.—Éloy, while reviewing the subject, says one of the principal objections to the employment of turpentine and its derivatives is its insolubility in watery vehicles. Terpine is a white crystalline powder, soluble in 200 parts of cold water and 6 or 7 parts of alcohol. It has a bitter taste, but is not nauseating. In the proportion of 1.5 per cent. of the weight of the animal, Lépine has found it to produce in the dog albuminuria, hematuria, change of respiratory rhythm, elevation of temperature, and finally death.

With man, in 3- to 5-grain doses, it augments the bronchial secretion, renders thinner the sputa, and acts as an expectorant. In 12- to 15-grain doses it excites contraction of the vessels of the mucous membrane and checks bronchial secretion—acting as a desiccant or hemostatic. In moderate doses it seems to act as a diuretic without altering the proportions of uric and phosphoric acids and the chlorides. It is better to use in neuralgias than turpentine, because it does not upset the alimentary canal. It is best prescribed in alcohol and a flavored water, and taken

with the meals.—*L'Union méd.*, Dec. 12, 1885.

Pure Terebene in the Treatment of Winter-Cough.¹—There are few complaints which interfere so seriously with the duties and pleasures of life, without actually incapacitating the sufferer, as chronic bronchitis. The disease is essentially chronic in its course; and the patient, if a resident in London, is rarely free from his enemy for more than a few weeks in the height of the summer. With the first fog or the first touch of cold east wind, the cough returns with its attendant discomforts, not to depart until the following spring is far advanced. Year by year it comes back with tantalizing punctuality, and lingers on with all the pertinacity of an old friend or a poor relation. During the last five years he has employed a method of treatment which yields excellent results. He has notes of 114 cases of winter-cough, some taken at the Chest Hospital, others at Westminster, and others again in private practice. They were all treated with pure terebene, a substance prepared by the action of sulphuric acid on oil of turpentine. It is an agreeable remedy, being a clear colorless liquid, with an odor like that of fresh-sawn pine-wood. It will not mix with water, but, as the dose is small, it can readily be given on sugar. It is not the same as the patent medicine sold under the name of "Terebene."

One of the great advantages of pure terebene is, that it is not a bulky medicine. An ounce bottle, carried in the pocket, will last for days, and is always ready for use. It is best to begin with five or six drops on sugar every four hours, and gradually to increase the dose to twenty minims. This is, for most people, the maximum quantity, but the drug has little or no toxic action, and one patient was so enraptured with his remedy that he insisted on taking a teaspoonful every four hours for a week. The only disadvantage ever noticed from its employment is that it gives a peculiar and characteristic odor to the urine, a circumstance which patients never fail to mention. When used as a spray, from one to two ounces should be diffused and inhaled every week.

Action of Oleum Thujæ and its Constituents.—From a recent inaugural thesis of Dr. Strahlmann, of Göttingen, on

¹ Dr. Wm. Murrell.—*Br. Med. Jr.*, Dec. 12, '85.

the action of oleum thujæ, we extract the following *résumé* :

1. Both main constituents of the oil of thuja, viz., terpene and thujol, are irritants to the skin. Larger doses applied hypodermically, or given internally, produce serious inflammatory conditions.

2. In cold-blooded animals respiration and motion are paralyzed, and the cardiac action slowed by either ; thujol acts with greater intensity than terpene.

3. In warm-blooded animals terpene reduces both the respiratory and the systolic frequency and lowers the temperature ; the movements of the body grow awkward and slow, without being at any time wholly suspended. Larger doses produce fatal results by respiratory paralysis, while smaller doses (below $\frac{1}{2}$ gramme : $7\frac{1}{2}$ grains) reduce simply the temperature.

4. Terpene is able to counteract the action of camphor, provided the former is given in a much larger dose than the latter.

5. Thujol quickens respiration and lowers the temperature in warm-blooded animals. Its action on the heart is irregular ; the frequency of the pulse grows soon greater, soon smaller. Frequently a cardiac spasm is introduced by an increase of the heart-beats.

6. Thujol raises the blood pressure, even when curare has been administered.

7. Thujol produces convulsions having a central origin. These convulsions are of a singular nature : the animals begin to tremble, stand up vertically, grind their teeth, wink with their eyes, and make chewing motions ; then they suddenly rush forward, drop, and are seized by an intense tetanus, followed by clonic cramps. The pupil is soon dilated, the saliva flows abundantly from their mouths, and the peristaltic movements of the intestines are increased. The cause of these convulsions consists in an excitation of the medulla oblongata, or, more properly, of the cramp-centre, which is situated in the medulla. A primary implication of the spinal cord could not be demonstrated.

8. Daily injections of small quantities of thujol have at first no effect, but later on produce cramps, which terminate in the death of the animal. This proves the cumulative action of thujol.

9. Of the two oils of thuja, the one having the higher boiling point has the more toxic action. It acts fatally in smaller doses, and causes intenser cramps.

10. These experiments do not suggest any therapeutic utilization of the oil of thuja or its principal constituents.—*Therapeutic Gazette*, Dec. 15, 1885.

Morrhuel, or the Active Principle of Cod-Liver Oil.—In view of the insurmountable repugnance which some patients have for cod-liver oil, in spite of the numerous procedures for disguising the taste. Dr. Lafage discusses the interesting question of the active principles of cod-liver oil. According to some, it is a fatty body, according to others it is to bromine, iodine, or phosphorus that the good effects which follow its administration are due. He endeavors to isolate the different component parts.

The first procedure, according to M. Chapoteaut, is to treat the oil with an aqueous solution of the carbonate of soda, which neutralizes the acids at a low temperature. The second procedure is to agitate the oil with 95-per-cent. alcohol ; the alcohol separates from the oil, is distilled, and the product of the distillation contains the active principles upon which his experiments depended. This, the morrhuel, is sour, bitter, very aromatic, partly crystalline at ordinary temperatures. It contains phosphorus, iodine, and bromine in very considerable quantities ; ten or twelve times more than in the crude oil.

M. Chapoteaut puts the morrhuel in capsules. Each three grains of the extract corresponds to a teaspoonful of the oil. He gives two capsules a day to children of six or eight, four capsules to children of eight to twelve, and eight or ten capsules to adults after eating. He believes that the new product, thanks to its easy administration, will replace the oil whenever that is found to be especially distasteful.—*Bull. gén. de théér.*, Nov. 15, 1885.

Aloin and Aloetin in the Animal Organism.—Justus Dietrich has recently been making a study of the fate of aloin and aloetin in the animal organism. The principle which he terms aloetin is not the so-called amorphous aloin for which the name has been used by some writers, but is the principle discovered by Zcumplik in aloes, which is soluble in benzine and makes a red color with alkalis. Mr. Dietrich finds that the aloin is partially absorbed from the intestine as aloin, the greater bulk of it, however, passing directly through the alimentary canal, and being thrown off with the fæces. The absorbed aloin has been

recognized by him in the blood, but is rapidly, in great part, eliminated through the kidneys; a little of it is thrown off by the liver, and with the bile passes back again into the alimentary canal. The aloetin acts in the organism very much the same as does the aloin. As in almost all his experiments Mr. Dietrich failed to find more than a trace of aloin in the duodenum or jejunum, he believes that this is due to a very intense action of the aloin in increasing the peristalsis of portions of the intestine, and itself being thereby hurried out of the bile. An equally plausible explanation of the matter is, however, that the aloin is absorbed in the stomach and excreted by the lower bowel, so that that which is found in the contents of the lower bowel has really passed through the circulation.—*Therap. Gazette*, Dec. 15, 1885.

The New Chilean Drug "Pichi."¹

—Dr. Henry H. Rusby, engaged in the investigation of the native remedies of South America, reached Chili just when the excitement concerning this shrub, the *Fabiana imbricata* of Ruiz and Pavon, was at its height. As the drug, whatever may be the final decision concerning its merits, is certain to attract considerable attention in the immediate future, quantities having been sent to the United States, England, Germany, and France for investigation, he thought well to depart from his rule of reserving the publication of notes until his return, and to present a brief sketch of the drug at the present time.

The early history of the drug presents very little that is novel. It has the usual origin among the aborigines,—the account of the immortal and ubiquitous old woman and her patient who had been "given up by all the physicians," with a fair average of thrilling stories of impossible cures. The first story heard concerning it was of its having dissolved and carried off a cystic calculus of great size, which various eminent surgeons had failed to remove. After listening to a number of similar histories, with a few accounts of what really seemed to be beneficial effects of the use of the drug, and finding that not only the people were using it, but that physicians were prescribing it, he began to take an interest in the plant. He called on Dr. Manuel S. Ramires, an accomplished physician of Valparaiso, well known in connection with

Chili's plundering expedition against Peru, and who would be able to give a pretty correct estimate of the value of pichi. From him it was learned that a very well-known Chilean gentleman had been suffering from a disease which had been repeatedly diagnosed as "gravel," and that after continued treatment he had grown so much worse that he was at length really despaired of by his medical attendants. He at length yielded to the persuasions of his friends and began using the pichi, whereupon a profuse diuresis set in, and he was soon relieved of his troublesome deposits. As usual, out of pure philanthropy, he published an account of his recovery, which he attributed wholly to pichi. Being a gentleman of great influence, his story had awakened the interest which has now become an excitement, and still continues to grow. Dr. Ramires had bestowed considerable therapeutic study upon the drug, and had gained a pretty definite idea of its range of application. He found that a patient suffering from chronic renal congestion was very satisfactorily relieved by it, while another, a girl of fifteen, suffering from albuminuria, with casts, a sequela of typhoid fever, had been rendered markedly worse, the albumen increasing until it had formed the principal portion of the urine. On the discontinuance of this drug, the albumen began gradually to disappear, and the patient at length entirely recovered. These results were the types of others that followed. The doctor had decided that pichi was contraindicated where there existed any degeneration of the kidney, but was indicated up to that point, the benefit being marked in cases of catarrhal inflammation. He considered its action in restoring impaired digestive power as of even more importance than its diuretic power, and stated that it had acted in his hands as a marked hepatic stimulant, though he was not sure but this action was secondary and incidental to the improvement of the digestion.—*Therapeutic Gazette*, Dec. 15, 1885.

On the Use of Salicylate of Lithia in the Treatment of Rheumatism.—

M. Vulpian has observed that the salicylate of soda, although very efficacious in the treatment of acute articular rheumatism and acute attacks of gout, has often no influence upon gonorrhœal rheumatism, and very little upon subacute and chronic articular rheumatism.

On the other hand, in these latter affec-

¹ Pee'chee.

tions, salicylate of lithia appears to have beneficial effect. It acts as a special salt, not only as lithia, or its acid, or its salicylic acid considered alone; the proof of this is that lithia as a carbonate has not produced any good results in the same cases, nor has salicylic acid given as the salicylate of soda. When an acute rheumatism treated by the latter substance has become chronic, it resists its action completely, then good results are obtained by substituting in the same doses the salicylate of lithia. Vulpius prescribes it in doses of a drachm and more a day. In larger doses it produces often painful diarrhoea; causes a deafness which does not last.—*Gaz. des hôp.*, Dec. 10, 1885.

Salicylate of Soda in Confluent Small-Pox.—Saint-Philippe asserts that there is marked lowering of the pulse and temperature under administration of the alkaline salicylate in cases of confluent variola. He observes a return of quiet, the appetite, and sleep. He begins its administration after the eruption appears.—*L'Union méd.*, Dec. 12, 1885.

A Case of Severe Hiccough Treated by Pilocarpine and Scutellaria.—Dr. T. Churton reports the following case in the *Br. Med. Fr.*, Dec. 19, 1885: Mrs. D., aged twenty-five, of middle height, ten stone in weight, hair and complexion of a yellowish red, was seen on July 29, 1884, with Mr. Cane, of Leeds. She had extremely severe and rapid hiccough; it was impossible for her to take any food or to breathe properly. Only during sleep or under chloroform was a single ordinary respiratory act performed. There was no decisive evidence as to immediate causation, but her constitution was neurotic. Her father, who drank much, died at forty-five; her mother was of emotional and excitable temper, and the patient was the only survivor of several children. Her teeth were very defective. A fortnight before our consultation, she had dyspepsia and palpitation; in a week the hiccough began. Married at eighteen, she had had one child. Prolapse of the uterus followed, but had improved, and now gave her no sensible inconvenience. Under treatment by morphia hypodermically, occasional inhalations of chloroform, and nutrient enemata, the hiccough gradually subsided in ten days. After a week it returned, and lasted eleven days. In a few days more it again returned, and resisted

the treatment. I now suggested the use of pilocarpine. One-fourth of a grain of the hydrochlorate was injected; in ten minutes the hiccough ceased. It recurred at intervals of a few days; on every occasion pilocarpine checked it. From October 9th to 19th, the patient slept very much. Previously, periods of insensibility had alternated with periods of excitement. At the end of December she became delirious, and continued to be so for six weeks, talking almost incessantly about a theatrical performance which she had recently seen. She also refused food, and gave much trouble in this respect. Soon after the delirium had passed off, the hiccough again appeared. As a test, Mr. Cane injected warm water subcutaneously, but without result. After thirty minutes, he injected pilocarpine; the hiccough ceased in ten minutes. A subsequent attack, caused by a fit of laughter, was similarly checked.

In April, 1885, the spasms returned suddenly, without discoverable cause. Pilocarpine now failed to relieve her; one third of a grain subcutaneously had little effect of any kind. She was then admitted into the infirmary. The spasms were not so violent as before; only twenty-six in a minute, and, as formerly, perfectly rhythmic. She felt quite well in every other way, and her face, though slightly livid, wore a cheerful and even smiling expression. Pilocarpine was again tried, but again failed. Morphine caused only a short sleep. Sixty minims of tincture of scutellaria were therefore given every two hours. After the eighth dose she slept four hours; the spasms next day were much diminished in strength, though not in number. After further diminution, on the fourth day, they ceased suddenly.

So far (December, 1885) there has been no recurrence of them. During the last attack she had conjunctivitis in the right eye; and she has frequently had it since that time. She has also upon one occasion slept almost constantly for three days.

In another case of hiccough, occurring in a neurotic woman whom I saw with Mr. B. Gray Heald, scutellaria checked the spasms. But from cases of this kind, it is not safe to argue as to the real power of drugs. Scutellaria has seemed to be distinctly useful in some cases of epilepsy, non-rheumatic chorea of moderate severity, insomnia, and of excitability bordering on delirium. In two cases of very severe

chorea, however, scutellaria failed entirely ; but conium-juice in six-drachm doses failed also ; chloral and bromide of potassium in full doses quickly mitigated the severity of the symptoms in both these cases. The specimens of tincture of scutellaria obtained hitherto have seemed to vary in strength. Scutellarine is advertised, but the only specimen we have yet been able to find somewhat resembled podophylline in appearance, and was certainly not an alkaloid.

Nutrient Suppositories.—A case was related by Mr. Godlee, for himself and Dr. Barlow, at the last meeting of the Clinical Society, in which the advantage to be derived from nutrient suppositories was well exhibited. The patient, as will be seen from a perusal of our report of the meeting, suffered from typhlitis. Mr. Godlee opened the abscess-cavity, and allowed a large quantity of foetid pus to escape. The patient eventually quite recovered, without any palpable evidence of the thick bands of inflammatory material which are so troublesome in many cases treated on expectant methods, and had since had no sign in any way of any trouble whatsoever about the cæcum. Dr. Barlow, speaking of the dietetic treatment after the operation, remarked "that in this case it was especially desirable to keep the stomach and intestinal tract at absolute rest. For many days, therefore, the very minimum of food, namely, a little barley-water, was given by the stomach, and the patient was fed by the rectum. The thirst was found to be entirely relieved by enemata of three-quarters of a pint of water, which were in all cases absorbed. With regard to rectal alimentation, it is often observed that after two or three days the rectum becomes intolerant of nutrient enemata. To avoid this result, food was given in the form of digestive suppositories. Of these, two very convenient forms were made by Mr. Gerard, dispenser at University College Hospital. The first was made by diluting a good meat extract with water, and peptonizing it with bullock's pepsin, neutralizing, and then concentrating to a soft paste. Cacao-butter was then added in fine shavings, and intimately mixed with one third of its weight of the peptonized meat extract, and rolled into cones weighing 100 grains. The second was made by peptonizing milk with pancreatic solution, boiling and concentrating to a paste, mixing and

dividing as in the first case. Peptonized milk being now sold in a concentrated form, it may be used instead of ordinary milk, which saves much time and trouble. The suppositories were certainly absorbed, and kept the patient going for several days. One was introduced about every three hours. His tongue became very dry, and after a time he was given some pieces of underdone chop, which he was allowed to chew and to swallow the juice derived therefrom, but not the fibre. Besides maintaining his nutrition fairly, the patient, who was rather an irritable, querulous subject, was satisfied and comfortable, and the advantage in keeping his abdomen quite quiescent was very great indeed." If other cases should confirm the favorable impression as to the advantages to be derived from this method of feeding, when contrasted with the failure which in a few days generally results from the attempt to sustain life by nutrient enemata, as the rectum generally soon becomes intolerant of them, there will doubtless be found a wide use for these suppositories in the very large class of cases in which the stomach requires to be kept at rest. Those who employ them may find, too, that the liquid which the system requires daily may be in some cases administered by the stomach ; this would, one might suppose, tend still less to the disturbance of the lower bowel, and leave it still more at rest to digest and absorb the suppositories alone.—*Brit. Med. Jour.*, Dec. 19, 1885.

The Germicide Value of Some of the Vegetable Acids.—Some time since, while engaged in work with Dr. Sternberg, the question arose as to the probable value of the vegetable acids as disinfectants. He suggested the advisability of my conducting a series of experiments with the object of determining whether or not they possessed such properties, and if so, to how great a degree. Dr. A. C. Abbott thus records the results arrived at.

The method used in the work is the same as that explained in the article on "Commercial Disinfectants" in *The Medical News* of February 7, 1885. In order that the conditions should be the same in all our experiments—that is, that we should invariably have the amount of the material to be disinfected, and the volume of the solution of the substance to be tested, equal, it therefore became necessary that those acids which came into our hands in a

crystalline form should be made into solutions. For this purpose the following standard solutions were prepared, and all the acids not in a liquid form were tested in this manner :

Standard Solutions Employed.

Acetic acid, glacial.			
Lactic " concentrated (sp. gr. 1.21).			
Oxalic " crystallized, 10 per cent. solution.			
Citric " " 50 " "			
Tartaric " " 50 " "			
Tannic " " 50 " "			
Gallic " " 4.75 " "			

The results of exposing decomposed beef tea, pure cultures of bacillus subtilis, bacillus anthracis and of pathogenic micrococci, for two hours to the action of these acids, are as follows :

Series No. 1.—Decomposed Beef Tea.

	Active.	Failed.
1. Acetic acid, glacial . . 20 per ct.	15	per ct.
2. Lactic " concentrat- ed (sp. gr. 1.21) . . 20 "	15	" "
3. Oxalic acid, crystallized 1.5 "	1	" "
4. Citric " " — " "	25	" "
5. Tartaric " " 20 "	17.5	" "
6. Gallic " " 2.375 "	1.9	" "
7. Tannic " " 20 "	12.5	" "

Series No. 2.—On Subtilis.

	Active.	Failed.
1. Acetic acid, glacial . . 20 per ct.	15	per ct.
2. Lactic " concentrat- ed (sp. gr. 1.21) . . 20 "	15	" "
3. Oxalic acid, crystallized 1 "	0.5	" "
4. Citric " " — " "	25	" "
5. Tartaric " " — " "	25	" "
6. Gallic " " — " "	2.375	" "
7. Tannic " " — " "	25	" "

Series No. 3.—On Anthrax.

	Active.	Failed.
1. Acetic acid, glacial . . — per ct.	50	per ct.
2. Lactic " concentrat- ed (sp. gr. 1.21) . . — "	50	" "
3. Oxalic acid, crystallized — " "	5	" "
4. Citric " " — " "	25	" "
5. Tartaric " " — " "	25	" "
6. Gallic " " — " "	2.375	" "
7. Tannic " " — " "	25	" "

Series No. 4.—On Micrococci.

	Active.	Failed.
1. Acetic acid, glacial . . 1 per ct.	0.5	per ct.
2. Lactic " concentrat- ed (sp. gr. 1.21) . . 1 "	0.5	" "
3. Oxalic acid, crystallized 0.25 "	0.1	" "
4. Citric " " 1.25 "	0.25	" "
5. Tartaric " " 0.25 "	0.125	" "
6. Gallic " " 0.7125 "	0.475	" "
7. Tannic " " 0.25 "	0.125	" "

In recording the results of the experiments, the percentage indicating the activity and failure of the acid tested, refers to the proportion of *crystallized acid* necessary to disinfect.

From the tables it will be seen that bacillus anthracis shows the greatest power of resistance to the influence of these or-

ganic acids ; second on the list is bacillus subtilis ; while the least resistant of the series are the pure cultures of pathogenic micrococci.

From these observations it is of interest that bacillus subtilis, an organism ordinarily possessed of greater vitality than bacillus anthracis, should succumb, while bacillus anthracis survived the exposure to these compounds. Again, it will be seen that oxalic acid possessed throughout the series of experiments the highest germicide value, while citric acid was comparatively inert ; the other members of the group occupying their respective places between these extremes.—*Medical News*, Jan. 9, 1886.

Oxalate of Cerium in Dysentery.—

Dr. Benjamin Pearson, of Slippery Rock, Pennsylvania, writes as follows :

Reading, in your Class-Room Notes, remarks made by Prof. Bartholow, on Oxalate of Cerium, is my only excuse for writing the following : I gave an infant of sixteen months, very ill with dysentery, oxalate of cerium to quiet the stomach and relieve vomiting. I commenced with $\frac{1}{2}$ a grain every two hours, giving it night and day, and increased rapidly to $7\frac{1}{2}$ grains in three days after, and continued that dose for two weeks without seeing any injurious results therefrom. I also used laudanum injection in conjunction. By these two remedies the child was cured, having taken 1,260 grains in two weeks.—*Col. and Clinic Record*, Jan. 1, 1886.

TOXICOLOGY.

Mercurial Poisoning Occurring from the Use of Percussion Caps.—

Drs. Marie and Conde report from observations upon persons employed in shooting-galleries. In one there was a stomatitis and tremors ; in the others, stomatitis alone ; but in all, the toxic symptoms appeared during the winter, when all windows were closed and the ventilation imperfect. The cartridges were composed of fulminate of mercury, and gave off during combustion poisonous gas.—(Extract from *Rev. de hygiene et de police sanitaire*) in *L'Union médicale*, Dec. 19, 1885.

Chronic Caffeinism.—Guelliot says that coffee taken in large and repeated doses produces :

1st. In man loss of sexual appetite and impotence.

2d. In women leucorrhœa; its action upon menstruation is slight, and it has no effect upon fertility or pregnancy.—*Rev. de thérap.*, Dec. 1, 1885.

A Poisoning Case.—Some excitement has been caused in Boston by a wholesale case of poisoning in a house in the most fashionable portion of the city. The symptoms, which at first attacked all the occupants of the house save the two young sons and the servant, were those of an irritant poison. A sauce-pan from which the lining had been worn away was at first suspected, and some potatoes which had been cooked therein were analyzed, with the discovery of copper, but in too small quantities, it was thought, to have caused the symptoms. At this time workmen in front of the house were melting tar, and the fumes were very disagreeable to the inmates. The persons who escaped had rooms at the back of the house, which fact led to the supposition that the tar might be the cause of the mischief. But the symptoms continuing, and including œdema of the eyelids, investigation was directed towards the materials used by the workmen to see if they contained arsenic. At this point a fresh and severer outbreak, affecting those previously exempt, recalled attention to the food, and it was found that the boys had eaten for supper of toast made of home-made bread. The boys had not before partaken of this bread. Suspicion was confirmed by the illness of a dog which was fed with bread and milk. The constituents used in the making of the bread were then examined, with the result of finding arsenic in large quantities in the flour-barrel. A few inches below the top of the barrel was a scoopful of a gray substance consisting of a mixture of arsenic and charcoal, probably the substance sold freely by grocers as "Rough on Rats." If this portion had been used in the bread, probably all who partook would have been killed. As it was, the length of time before the discovery of the poison caused serious illness of several members of the family. Even a tramp, who had received a piece of the bread, was found to have suffered. Just before the first occurrence of the poisoning a cook had been discharged from the house, and her place was filled the next day. Suspicion naturally fell upon this person, who might have had the motive of revenge, and she is now under arrest. But up to the present time the

police have not discovered who sold the poison, nor have they any positive evidence against her.—*Phila. Med. Times*, Dec. 26, 1885.

Opium-Poisoning through Mother's Milk.—W. T. Evans writes as follows to the *Brit. Med. Jour.*, Dec. 19, 1885:

On November 17th, I attended Mrs. T. in her eighth confinement, which was natural, although rather tedious in its first stage. She was delivered of a fine, healthy, female child about 1:30 P. M. I left her a drachm of liquor opii sedativus, to be taken in four doses, at intervals of four or five hours, if required, for the after-pains. On visiting my patient the next morning, I found she had had no sleep, on account of the severity of the after-pains; I therefore sent her six doses, of twenty minims each, of liquor opii, to be taken as before. (I may say that this patient had, on former occasions, suffered in an unusual degree from these pains.) On the 19th, I found, on my visit, that she had had about three hours' sleep, but that the after-pains were still troubling her about every fifteen minutes. I therefore repeated the medicine I had ordered her the day before. On the 20th, I found she had had more sleep than on the previous night, had finished the medicine, but was not at all drowsy, nor under the influence of opium in any way, except the relief it had afforded her from her pains. The milk came into the breasts during the night, and at 4 A. M. the child was put to the breast, and sucked well. It took it again about 7 A. M., but not quite so freely as before. Up to this time, the infant had been fed on milk-and-water and gruel. At my visit, it appeared to be comfortably asleep, so much so, that the nurse had not washed it. At 2 P. M. I was sent for, with the request that I would go at once. I did so, and found the infant very drowsy. On examination, the pupils were contracted almost to the size of a pin's head. The respiration was slow and tranquil. The countenance wore a placid expression, like a child in a natural sleep, and was rather pale. The skin was moist with perspiration. I roused the child with difficulty, but it relapsed at once into its former sleepy state. From these symptoms I diagnosed the case as one of opium-poisoning, and ordered the nurse not to lay the child down, but to constantly rouse it, and give it frequently strong coffee (with milk) as a stimulant. I also cautioned her not to put

the child again to the breast. A few hours later, as there was no improvement, I ordered liquor ammoniæ to be dropped on a pocket-handkerchief and applied to the nostrils. I was sent for about midnight, and, on arriving, found the child had ceased breathing. I performed artificial respiration for about half an hour, but without avail; the child was dead.

At the inquest, the coroner informed me that he had never met with a similar case; therefore, I thought it would be interesting to record it as a case of opium-poisoning, communicated to the infant through the medium of the mother's milk, and at the same time to put medical men on their guard against allowing an infant to take the breast where it is necessary to give large and continuous doses of opium to the mother.

PATHOLOGY.

The Relation of Micro-Organisms to Tubercle.—One of the interesting points of the recent series of lectures by M. Bouley before the Museum of Comparative Pathology at Paris, is his treatment of the pathogeny of tubercle. According to Bouley, tubercle is a generic name applicable to certain little nodules or tumors formed in the lungs and other viscera as the direct consequence of an irritation, caused at the points where these tumors appear by a living parasite. Tubercle comprises many species. To begin with the vegetable world, what are those little tumors called galls but *tubercles* determined by the presence in the tissues of the plant of ova which certain insects have deposited there after piercing the part with their terebra? Around these eggs the vegetal tissue under the irritation undergoes proliferation, and a real tuberculous neoplasm, the gall, is the result.

The researches of Professor Cornil tend to show that between tubercle properly so-called (phthisis), and the swelling which results from the arrest in a fine arteriole of a nematoid ovum or embryo, there is anatomically no difference.¹ Laulanié deduces this conclusion from the histological examination made by him of the nodosity constituted by the irritant action of the ovum of the *strongylus vasorum*; "that the specific agent of tuberculosis acts in the

same manner as the eggs of the strongylus, and inflicts its first mischief on the blood-vessels in which it has penetrated."² It is a striking fact that all viruses by the local inflammatory reactions induced by their presence cause similar results; growths are formed, composed of cells and nuclei, sometimes blocks of protoplasm with many nuclei (giant cells); these neoplasms are always characterized by paucity of blood-vessels and a tendency to ulceration and fatty degeneration. The agamous strongyli, which form in the bronchi or muscular-tissue nodules in which they become permanently imbedded, produce morbid growths easily distinguished by the presence of the parasite visible to a low power; the lesions of tuberculosis, of syphilis, and of glanders are not thus readily distinguishable. In fact, the most careful study, even with the help of the microscope (but without special staining processes), of the tubercular neoplasms of these respective specific agencies, fails to determine any absolutely differentiating characteristic. On this point the most competent histologists are agreed. Other factors must be invoked for the purpose of differentiation, such as the subject of the lesion, the clinical history and known ætiology, the presence or absence of Koch's bacillus.

A striking example of the way viruses work in the animal economy (and by *virus* we now understand *contagium vivum*), is furnished by that familiar disease known as *rouget* in swine. The objective characteristic of this disease is the dissemination on the surface of the skin of red spots and patches more or less diffused. The pathological anatomy of to-day warrants us in considering those patches as the seat of the pullulation in the *rete mucosum* of the skin of the virulent elements of this rapidly fatal disease. Now that the special microbe has been isolated and cultivated, nothing is easier than to obtain the repetition of this disease on healthy animals by inoculation of the remote products of culture; after a few days of incubation there appear on various parts of the integument the red spots which are an expression of the irritating presence and multiplication of the microbe, just as the pustules of small-pox are the expression, under another form, of the pullulation in isolated or confluent places on the derm of the living element of this dire malady.³

¹ "Leçons de Pathologie Comparée," Paris, 1884, page 76.

² *Ibid.*

³ Bouley. Loc cit.

The same interpretation of symptomatic and anatomical facts is applicable to glanders and other virulent diseases, in their relation to the external or internal lesions which accompany them, (we may also cite in this connection trichinosis, caused by the larva of the trichina.) After a masterly *résumé* of these data, Bouley, to whom we are indebted for much scientific philosophizing, shows that phthisis and all the tuberculous lesions are amenable to the same explanation. "How is it with true tubercles, those of phthisis—are they also the expression of a local irritant action, determined by a special element which constitutes their nature, like the strongylus or the ovum of the nematoid, in its relation to the little tumors of tuberculous appearance, of which it forms the central nucleus and is the causal condition? A legitimate induction authorized us to give an affirmative answer to this question before the specific causal agent was found; when it was recognized that tubercle is not histiologically different from the neoplasm investing a microscopic strongylus, an ovum or filaria in the same blood-vessels, it was logical to conclude from the known etiology of the latter, that the former had a similar etiology. To-day the demonstration is actually made that the tubercle of phthisis, like that of glanders, has the same signification, as an anatomical fact, as that of the *helminthiatic* tuberculosis—that is to say, that it proceeds from a living element, which is the bacillus discovered by Robert Koch."—Editorial, *Boston Med. and Surg. Jour.*, Dec. 10, 1885.

On the Disinfection of Tuberculous Sputa.—Dr. E. W. Cushing (*Boston Med. and Surg. Jour.*, Dec. 10, 1885¹) advocates the above procedure in the following remarks:

I have a few words, however, to say in regard to the sputa. It is evident that these should be carefully disinfected and rendered harmless. A thoroughly exhaustive series of experiments by Schill and Fisher, show that the best means for disinfecting the fresh sputa is to have in the spit-cup a quantity of five-per-cent. solution of carbolic acid equal in amount to that of the sputa. Sublimate solution is not sufficient, because it acts only on the outside of the lumps of sputum, cooking them, so to speak, but not killing the ba-

cilli on the inside. Baking or boiling of handkerchiefs or clothes which have been soiled will kill the bacilli in an hour, even when the clothes are thick.

I submit that an originized public opinion ought to be brought to bear against the disgusting habit of spitting on the floor of horse-cars and public places, and physicians certainly ought to attend to such matters in prescribing the hygiene and mode of life of their patients, especially among the poor and ignorant.

The frequent examination of the sputa is of the utmost importance in establishing the diagnosis, and very useful in watching the progress of the disease. There is no doubt that bacilli can almost always be found before the tuberculosis has made much progress, and the gradual diminution of their frequency and their final disappearance is the surest token of recovery. Gaffky has published the results of the investigation of fourteen cases, examined microscopically daily for some three months; of twelve patients's sputa, there were in all nine hundred and eighty-two examinations, each time of one slide from each patient daily. Bacilli were found nine hundred and thirty-eight times, and not found forty-four times. Most were severe cases, but some were without fever and had only slight infiltration of the apices, yet the bacilli were found in the latter.

In two cases, the bacilli diminished, were absent, returned, and finally disappeared altogether; one of these was discharged apparently cured; the other died of perforative peritonitis caused by swallowing eighteen plum-stones. The lungs showed no caverns or cheesy deposits, but a calcified spot as large as a cherry-stone, and slate-colored, fibrous induration of the apices.

I will only insist, on closing, on the great necessity for the disinfection of tuberculous sputa; for proper precautions to prevent infection of relatives or attendants of the phthisical; of the careful examination of our meat and milk supply, and of carefully treating any catarrhal conditions of the air-passages, as well as of generally keeping up to par the system of those who have any inherited disposition to tuberculosis.

Some Observations on the Theory of Bronchial Asthma.—Dr. Andrew Clark endeavors to set forth as concisely as possible what he regards as the teaching of a study of hay fever concerning the pathology of bronchial asthma:

¹The specific and infectious character of tuberculosis, with exhibition of the bacilli of tuberculosis, and those of malignant pustule (anthrax).

1. Asthma is a neuro-vascular trophic disease, and has its roots in a special vulnerability of the respiratory mucous membrane, of the respiratory nerve centres, and of certain portions of the sympathetic.

2. The irritation exciting the nerve discharges which bring about the asthmatic paroxysm may arise in the blood, in any one of the mucous tracts, but more particularly the respiratory one, in certain cutaneous inflammations, and in the central nervous system itself.

3. The paroxysm begins by a more or less diffused hyperæmic swelling of the bronchial mucous membrane, and is continued by the development at various parts thereon of circumscribed congestive swellings, which come and go with greater or less rapidity, and resemble in many particulars, the swellings of the skin in nettlerash.

4. At their first appearance these swellings become coated with a viscid mucus, hinder the entrance and exit of air, and by their vibration produce for the most part the drier râles characteristic of a certain state of the asthmatic paroxysm. Toward the close of an attack, the swellings after free secretion subside, the dyspnœa is relieved, and moist take the place of dry râles.

5. The secretion from the swellings being sometimes acrid, and even corrosive, may excite some contraction of the bronchial muscles; but such contraction cannot become, either by its nature or its amount, the chief factor in the evolution of the asthmatic paroxysm.

6. The hyperæmia and circumscribed swellings of the bronchial mucous membrane hindering the free entrance of air, and thereby the full aëration of the blood, both the peripheral nerves and the respiratory centres are irritated, and exaggerated discharges of respiratory impulses are sent to the inspiratory muscles, which are thrown thereby into violent and sometimes even tetanic contractions.

7. These violent inspiratory efforts increasing the Hallerian extension force of the thoracic walls, straighten the bronchial tubes, and, notwithstanding the tendency of inspiratory force to increase the size of the swellings, make the entrance of air into the lungs far easier than its exit.

8. When the inspiratory efforts cease, and the expiratory recoil begins and is continued by the muscles of forced expiration, the smaller bronchi, more especially those containing mucous wheals, are compressed,

and all the passages are relaxed and lose their straight direction. Thus the egress of air is greatly hindered, and the act of expiration so much prolonged that it is sometimes suddenly interrupted and prematurely closed by the violent inspiratory efforts originated in the respiratory nerve centres through the circulation of imperfectly oxidated and decarbonized blood. In this way inspiration gains on expiration; the alveoli are extended with air; the diaphragm is depressed, the chest, in all its dimensions, is dilated; breathing becomes more and more difficult; death seems imminent; and the paroxysm is at its height.

9. After a time, varying greatly in duration, the attack begins to subside, and, partly by secretion from the bronchial mucosa, partly from the exhaustion of the excitability of the respiratory and vasomotor centres, respiration becomes easy, lividity and swelling of the face disappear, restless anxiety is displaced by a growing calm, and the attack is brought to an end. —*Amer. Jour. Med. Sci.*, Jan. 1, 1886.

On Dilatation and Hypertrophy of the Heart Which are not Produced by Changes in the Valves.—Dr. Francis Delafield concludes the study of sixteen cases of the above nature with the following remarks :

In most of them no cause at all for the cardiac lesion could be discovered; and in those cases in which there was a history of sudden exertion, or mental emotion, or of change in the wall of the heart, these conditions do not seem at all adequate to explain the cardiac lesion.

Most of the cases were males, and many of them young adults. The invasion of the symptoms was sudden in seven cases, gradual in five, and in three was not stated. The disease ran in some cases an acute, in others a chronic course. In his own cases the shortest period was twenty-four days, the longest fifteen months. The heart's action was irregular and feeble, the physical signs of dilatation were evident; in some of the cases there was a systolic murmur, in others none. The dyspnœa was in most of the cases a marked symptom. He has never seen more distressing dyspnœa than that which existed in some of his cases. Dropsy was developed in the more protracted cases, but not in those of shorter duration. The urine in the cases observed was diminished in quantity, the specific gravity from 1,010 to 1,026, there was no

albumen present, or but very little. The dilatation regularly involved both ventricles, and hypertrophy was the exception.

The lungs, liver, stomach, spleen, and kidneys regularly presented the condition of chronic congestion which belongs to marked valvular lesions of the heart.

The course of the disease was from bad to worse, and even the symptoms were but little alleviated by treatment.—*Am. Jour. Med. Sci.*, Jan. 1, 1886.

An Analysis of Two Hundred and Fifty Autopsies on Drunkards, Illustrating the Most Prominent Anatomical Lesions of Chronic Alcoholism.—

Dr. Formael, in a paper on the above subject, considered the most conspicuous lesions to be cyanotic induration of the kidneys, fatty infiltration of the liver, and mammillated stomach. His cases had been those in which there had been a history of a long-continued series of debauches, the subjects often dying in one of these debauches, and did not include moderate drinkers or those who perished after imbibition of an enormous quantity of alcohol without any previous chronic excesses. He thought that the exposure, irregularities of diet, etc., incident to a state of drunkenness had much—probably more than the alcohol itself—to do with the production of the lesions; but it was not at all possible to separate one from the other. He gave a long list of lesions considered by various authors to be results of chronic alcoholism, among which the cirrhotic liver with contraction held a prominent place. He had himself at one time considered cirrhosis a very frequent, if not almost necessary, concomitant of long-continued, excessive use of alcohol, and had even testified in court that a certain person was not likely to have been a hard drinker, because at the autopsy no cirrhosis of the liver was found. He had thought, too, that the connection between the two was so close that it was impossible to have a case of cirrhosis without a previous history of alcoholism, as is held by various authors. Therefore it was surprising to him to meet in his two hundred and fifty autopsies with only six cases of cirrhosis of the liver with contraction. In two hundred and twenty cases the liver was considerably or even very much enlarged, the enlargement in most cases proving to be due to a fatty infiltration. Cyanotic induration of the kidney and chronic gastritis, with mammillation of the stomach, were

found in nearly every case. This cyanotic induration is peculiar, and differs from the cyanotic induration due to heart disease.—*Phil. Med. Times*, Dec. 12, 1886.

On Adenoma of the Kidneys.—Wiefel, in an inaugural dissertation at Bonn, 1885, confirms, by more of his studied cases of tumors of the kidney, the statement of Grawitz that many tumors of the kidney which heretofore were denominated lipomata, in reality were not lipomata at all, but rather tumors which had their origin in the supra-renal capsule. The cells of this tumor, with the exception of those found in old persons, are devoid of fat, as is the cortex of the suprarenal capsule in the aged, and are composed of kidney elements. The capsule of the tumor consists principally of an hypertrophy of the interstitial kidney tissue. The author names these tumors adenomas of the kidney produced by a prolongation of the convoluted uriniferous tubules.—*Central. fur. klin. Med.*, Dec. 12, 1885.

Hæmophilia without Heredity.—Dr. F. Forcheimer reports the following case: Geo. E., æt. eleven, was brought to the clinic of the Good Samaritan Hospital with the following history. When about seven months of age he was given a bottle to play with; he put this into his mouth, and in some way or other wounded his upper lip. This was followed by a profuse bleeding, which continued for several days and could be checked only with great difficulty. He remained well until at the age of two he fell down and cut his forehead; this, also, was followed by a profuse hemorrhage, lasting, as the mother stated, for nearly a week, and almost killing the child. Since this time hemorrhages have become more frequent, and the slightest wound, such as picking his nose, will give rise to bleeding that may threaten his life. In the last nine years he has nearly bled to death ten times; not only does he bleed, but wherever he bumps himself there large swelling appears which lasts for weeks. Upon the most careful cross-examination the mother denies the existence of any thing like hæmophilia in her or her husband's family. She knew her parents, and neither they nor her brother had ever suffered from any thing like what the boy is complaining of. Examination of the patient reveals the following. Upon his forehead, a scar; his tongue has a small cicatrix. His general appearance is good; he is bright, answers questions readily, the

color of the mucous membrane is normal, respiration and pulse normal, and examination of the heart, lungs, and abdominal organs reveals nothing. Upon his left thigh is found a baggy swelling, distinctly fluctuating and of a bluish color. Upon the left leg there is found a similar swelling, but changed in that it is hard and of a greenish-yellow color. Upon the right elbow, the right forearm, the right thigh, there are found other swellings, showing distinctly by their color and fluctuation that they have been produced by subcutaneous hemorrhages. The knees are swollen and quite painful, and the patient states that he frequently has pain in one or the other joint. In order to find if any thing abnormal could be detected in the boy's circulation, I asked the late Dr. A. L. Keyt to examine the case with his sphygmograph. The right radial, the heart, and right carotid artery, the heart and dorsalis pedis artery, and the heart and posterior tibial artery (the three latter examined simultaneously in couples) were investigated. The result obtained was that in every instance the curve was normal, but the velocity of wave a variable one. From this Dr. Keyt would deduce, if any thing can be deduced from it, an instability of arterial tone. This case certainly presents all the symptoms of a hæmophilic. But one thing is wanting, and that is heredity. If this is a condition, *sine qua non*, for the diagnosis, then the case reported is not one of hæmophilia. But this cannot be the case, as we have here a patient who begins to bleed before the completion of his first year of life and has continued to do so up to the present time, at the same time presenting all the symptoms of a bleeder. Although heredity is looked upon as the chief cause of hæmophilia, and this, in any one bleeding, is sufficient to base a diagnosis upon, yet authorities are free to admit that cases occur in which the hereditary factor is absent.—*Arch. of Pediatrics*, Dec. 15, 1885.

Sensory Troubles of Phthisis.—Dr. Margerite has studied, in his thesis, sensory troubles of the acute form. He concludes:

1st—In the course of acute tuberculosis and toward the end of chronic tuberculosis troubles of sensibility are frequently observed.

2d—They are divided into two great classes: hyperæsthetic and anæsthetic.

3d—Hyperæsthesia is rarely wanting;

Bean describes two forms to which he gives the names of myalgia and melalgia.

4th—These pains depend upon diffuse medullary lesions and an annular cortical lepto-myelitis.

5th—Their appearance renders probable, even in the absence of physical signs, the existence of an element of acute general tuberculosis.

6th—These phenomena presage a speedy and fatal termination.—*Revue de Thérap.*, Dec. 1, 1885.

Acute Febrile Glycosuria.—Dr. E. Markham Skerritt narrates the following case, which has recently come under his observation, illustrating the occurrence of glycosuria, under what, as far as he has been able to ascertain, are exceptional circumstances.

The patient was a gentleman aged 36, who came in on May 11th last, looking extremely ill. He stated that eight days before he had been suddenly taken with a severe pain at the bottom of the back; this still persisted to a slight degree. Since the beginning of his illness he had been giddy, and had sweated profusely at night. The appetite was bad; he was very thirsty, drank much fluid, and passed about double the usual quantity of urine. This had never been the case before the onset of the present illness. The bowels were obstinately constipated. The patient had always enjoyed good health; but he had been much affected by the death of his mother, somewhat unexpectedly, two years ago.

On examination he found that the pulse was 120°, weak; the temperature was 102.08°; and the tongue was coated with a thick white fur. The urine was straw-colored, its specific gravity was 1.038, and it was loaded with sugar. There was no albumen. There was no evidence of disease of other organs.

He sent the patient home to bed, placing him upon a strict diabetic diet, and prescribing half-grain codeia pills, to be taken three times a day, and an aperient.

Next day, as the temperature was 103° and the other symptoms were unchanged, he ordered salicylate of soda in twenty-grain doses, three times a day, in addition to the codeia; and on the following day the temperature had fallen to 99°, the specific gravity of the urine was only 1.028; there was a mere trace of sugar, and the thirst, with the accompanying excessive excretion of urine, had disappeared.

Next day, May 14th, the third day after first seeing the patient, and the eleventh from the onset of the illness, the temperature was normal, all the symptoms were much relieved, and there was only a trace of sugar present. The salicylate of soda was now discontinued.

On May 29th, a fortnight later, he removed all restrictions as regards diet, except in the case of sugar itself, and ordered the codeia to be taken twice a day; and on June 12th, a month from the date of the first observation, as the amount of urine never exceeded from a pint and a half to two pints in the twenty-four hours, and as there was no trace of sugar, he allowed the pills to be discontinued.

Since then the patient has remained absolutely free from symptoms of glycosuria; but on June 24th the specific gravity of the evening urine was 1.028, and there was a trace of sugar; and on July 20th the density was 1.034, a trace of sugar being again detected. On both occasions the morning urine was normal. The total amount of water passed in the twenty-four hours remained at about a pint and a half.

As a precautionary measure he advised the patient to resume the codeia pills, and to avoid sugar and starch as far as possible, without returning to a strictly diabetic diet. He has not since had occasion to see him.

Glycosuria may be associated with the febrile state in one of three ways:

1. By accident; when fever occurs in a patient who is already the subject of diabetes. This is by far the commonest mode.
2. As a sequel to acute disease.
3. As one of the phenomena of the fever; as in the instance related. This is an exceptional occurrence.

When a person in whom glycosuria already exists suffers from a febrile attack, the influence of the latter upon the excretion of sugar is well known to be uncertain. The sugar is commonly diminished in amount, and sometimes it disappears altogether, but in other cases the glycosuria remains unaffected. In the former event, the onset of the formidable condition commonly known as acetonæmia, or diabetic coma, is to be dreaded.

Senator (Ziemssen's *Cyclopædia*, vol. xvi.) gives the following account of the influence of fever upon the excretion of sugar:

"The influence of intercurrent febrile diseases upon the behavior of diabetes is very

noteworthy. To a certain extent, namely, all of these diminish the saccharinity and the quantity of the urine, chiefly in consequence of the decrease in the amount of food taken and in the digestive activity resulting therefrom; but partly also because the sugar and water escape from the circulation by other channels than through the kidneys. But, apart from this easily comprehensible reduction of the amount and saccharine character of the urine, very striking variations are shown, which, at present, can scarcely be explained, namely, that, during the continuance of the febrile affections, the urinary symptoms sometimes entirely disappear, even when food is not wholly forbidden, and at other times they continue in considerable intensity. According to existing observations, it cannot be positively asserted that the variety of the febrile disease exerts an influence, but that, in the case of certain diseases, the effect is variable. Thus, according to Popoff, an attack of relapsing fever had no effect at all upon the symptoms of diabetes; whilst Semon relates an instance of the perfect abeyance of the latter as long as the former lasted. Leube witnessed a notable decrease in the excretion of sugar during a pleuro-pneumonia, whereas Petters saw no diminution at all, or only a very slight decrease, in pleurisy, intermittent fever, and varioloid. Other authors, again, have seen the sugar wholly disappear from the urine in small-pox (Pavy, Rayer, De Carvalho); but in this connection it is important to note that the variola always ended in death, which occurrence is, in any case, usually preceded by the disappearance of the sugar from the urine. Typhoid fever, whether ending in recovery (Pavy), or in death (Griesinger, etc.), does not seem to arrest the secretion of sugar. Andral saw the sugar wholly disappear in febrile angina and in severe dysentery."

The occurrence of glycosuria as a sequel to acute disease may be dismissed in a word. It is well known that diabetes may set in after an attack of acute illness, apparently originated by the febrile state, as it may be by other deviations from health.

There remains the group of cases which includes the one briefly brought before you, where the glycosuria appears during the period of pyrexia as one of the phenomena of the fever. Instances of this are rare. Burdell and Seegen quote ex-

amples where sugar has been excreted during the course of intermittent fever; Burdell, in particular, stating that he has met with such cases in great number. According to these observers, such instances are illustrations of the transitory form of glycosuria, and are not to be placed in the same rank as cases of true diabetes, which have been occasionally seen to make their appearance after long-continued and obstinate intermittent fever, as well as after many other debilitating diseases.

The author has not been able, however, to find instances on record quite similar to that related. The special peculiarity of this case is the association of a febrile attack, possessing no specific features, with a condition of acute glycosuria, in which the characteristic symptoms of diabetes—thirst and the excretion of a large amount of sugar-laden urine—were prominent features. The fever persisted for eleven days, and during this period the diabetic phenomena were pronounced; and with the subsidence of the pyrexia, the sugar disappeared from the urine. As respects the exact relationship of the fever and the glycosuria in this case, inasmuch as there is no reason to believe that the excretion of sugar in itself has any tendency to excite pyrexia, this instance must be regarded as analogous to those cases of intermittent fever to which reference has already been made, in which the glycosuria is directly induced by the febrile state, and where its phenomena disappear when the fever abates.

Asked to give a prognosis when he first saw the patient, he ventured to say that, inasmuch as the glycosuria was associated with an acute febrile attack, it was probable that, with the fall of the temperature, the sugar would disappear, or, at all events, would be reduced to an amount that would not be associated with symptoms. The result was in accordance with his expectations; although the patient returned to his ordinary diet and his usual mode of life, the glycosuria entirely disappeared. As noted, however, on two subsequent occasions he has detected a mere trace of sugar in the evening urine, that of the morning remaining free. Time must show whether the condition is altogether evanescent, or whether, on the other hand, it will ultimately prove to have been the starting-point of a permanent diabetes.—*Brit. Med. Jour.*, Dec. 5, 1885.

SURGICAL.

The Etiology of Malignant Diseases.—This subject has always been of profound interest to surgeons and pathologists, but it has generally developed only theoretical discussions and writings. It is, therefore, with intense pleasure that we can chronicle the recent advent of two articles of eminently practical import on this subject, which, from their importance, deserve almost entire reproduction.

Dr. G. A. Wheeler reports¹ fourteen cases of malignant disease occurring in his town, Castine, Me., within a radius of two or three blocks. His truly wonderful narration is given nearly in his own words.

The predisposing causes of cancer are stated by nearly all authors who have written about this disease, as unknown. It is usually admitted, however, that all causes which tend to lower the vitality of the system are among the number, and by many there is thought to be a kinship between tuberculous and carcinomatous affections. As phthisis undoubtedly bears a certain relation to the humidity or dryness of the soil, the query is forced upon us whether carcinoma may not also have a similar relation either to the humidity or to the composition of the soil.

I am led to these reflections by a consideration of the cases of malignant disease which were presumably cancerous, though not actually demonstrated to be such by the microscope, which have occurred within the last eighteen years, in the small village of Castine, Maine, and in a particular part of the town,—in fact, nearly all on one particular street, or quite near to it; *the few other cases mentioned, having at some previous time lived on or near this street.*

The soil of this portion of the village is superficially a sandy loam, beneath which is a layer of coarse gravel, and still deeper a blue clay. All the drinking water upon the street is extremely hard, but no analysis of it has ever been made. The street commences near the summit of a hill about two hundred feet above the level of the ocean, and slopes down to the sea. The drainage is excellent.

1. N. G., male. Age, about fifty. Lived in the house for many years. No heredi-

¹ "Some Facts Bearing on the Etiology of Carcinomatous Diseases."—*Boston Med. and Surg Jour.*, Dec. 24, 1885.

tary predisposition known. Occupation, a ship carpenter. Autopsy showed scirrhus of the cardiac orifice of the stomach. Death from starvation.

2. J. N., male. Age, about fifty. Lived next door to 1. Occupation, ship carpenter. No hereditary predisposition known. Had a tumor of the thigh for which he was admitted to the Massachusetts General Hospital, but for which nothing was done there. He afterwards went to the Boston Homœopathic Hospital, where he was operated upon, but the tumor returned, and he subsequently died, and the death was reported as from cancer. Had lived in this house for years.

3. Wife of the above. Age, about forty-five. She was attended by the writer a few weeks before her death, which was due to malignant disease of the womb.

4. C. C., male. Age, about fifty. Lived about five doors from 2 and 3. Merchant. No hereditary tendency. Had occupied the house for years. He was operated upon unsuccessfully by the late Dr. Greene, of Portland, for scirrhus of the rectum.

5. S. H., female, single. Age, sixty-nine. No hereditary tendency. Across the street from 4. Had occupied the house for years. Had a scirrhus of the breast removed at the Maine General Hospital. Died from constitutional infection. Had also a large abdominal tumor.

6. J. H. N., male. Carpenter. Age, about sixty. One block from 4. Had lived in the house from childhood. His mother is said to have had a "sore" cancer of the face. Autopsy showed scirrhus of the pylorus.

7. B. K., female, widow. Age, about fifty-five. One block from 6. Had lived in this house and in town only two years. No hereditary tendency known. Died from carcinoma uteri. Is supposed to have had the disease when she came to town, but this is a matter of doubt. Her sister died in the same house two years later of phthisis.

8. B., female, married. Age, about sixty-five. No hereditary tendency. Had an abdominal tumor which, from its hard, knobby feel, I diagnosticated as scirrhus. Had marked cachexia when she died. No autopsy. Half way between 6 and 7. Had lived in this house for years.

9. D. L., female, married. Age, about sixty-five. No hereditary tendency known. One block from 8. Had resided in this

house for years. Diagnosis, carcinoma uteri. Was under the charge of Dr. Stevens, now deceased.

10. M. C., female, widow. Age, about eighty. No hereditary tendency. Had carcinoma mammae. Three doors from 9. Had resided in this house for years.

11. F. C., female, married. Age, forty-four. Cauliflower excrescence of cervix uteri. Removed by Dr. E. F. Sanger and myself. Disease extended and finally destroyed recto-vaginal septum. No hereditary tendency. Three or four doors from 9. Had lived in this house twenty years.

12. G. T., male. Age, fifty-five. Trader. Died from a malignant disease affecting the stomach, and probably involving other organs. No autopsy. No hereditary tendency. One block from 4 and 5. Had occupied this house for ten or twelve years, but had lived in the one opposite 4 and 5 for a still longer period.

13. S. D., female, married. Age, about forty-five. No hereditary tendency known. Died from what was diagnosticated by her attending physician as carcinoma uteri. A short block from 12. She had lived in this house for several years, but had also lived many years in the one marked 5. Had a child die of phthisis.

14. L. W., female, widow. Age, thirty-seven. Mother died of heart disease, but had a suspicious tumor of the abdomen. This patient was operated upon by Dr. E. F. Sanger and myself for cauliflower excrescence of cervix uteri. Is still living, but is likely to succumb to the disease eventually. Lived next door to 13. This patient has lived in this house for many years, but formerly lived two houses from 6.

According to common report, there have been one or two other cases of cancer in this same locality, but I have been unable to verify the fact. I have one patient on hand, however, who resides just above 4, who has had a polypus uteri removed, and who now has a large uterine tumor of some kind, the nature of which is still in doubt, but which I am fearful may prove to be carcinomatous.

The surprising thing about these cases is that they should have been confined to such a limited territory. After a residence of fifteen years in this town, I have not known and am unable to learn of any other cases of presumed carcinoma occurring in any other portion of this village, and but few

cases have occurred in my practice elsewhere. If there be not some local cause for these cases, it is remarkable that they should have occurred where they did.

I am aware that so limited a number of cases can have no great weight towards establishing a local cause, but it seems to me they should have some, and they are given in the hopes of inducing other physicians to pay some attention to the localities in which their cases occur.—*Boston Med. and Surg. Jour.*, Dec. 24, 1885.

Dr. R. J. Hall, in an article entitled "A Contribution to the Etiology of Malignant Tumors,"¹ upholds the hypothesis which attributes these mysterious neoplasms to a specific virus, in all probability a micro-organism. He employs Formad's classification of the different theories hitherto formulated in regard to the origin of tumors.

1. Predisposition and inflammation theory.

2. Dyscrasia theory.

3. Embryonal theory.

4. Idiopathic or spontaneous.

5. Nervous theory.

He considers as really worthy of consideration only the predisposition and inflammatory theory. When, following closely on his cellular pathology, it was demonstrated by Virchow that tumors consisted of cells not differing genetically from those found in normal tissues, the discovery excited such enthusiasm that many men were convinced that the life history of the cell alone could sufficiently account for all the phenomena. Thus, according to the widely accepted views of Thiersch, in old age the resistance of the connective tissue is diminished, the interstitial spaces are widened; under some local irritation the deeper epithelial layers proliferate and penetrate the underlying tissues, penetrate the lymph spaces, and are swept into the neighboring lymphatic glands, where, in accordance with their life history, they develop indefinitely, and not being on a surface where constant desquamation can occur, must do so at the expense of surrounding tissues. Thiersch, while correctly recognizing the inflammatory character of at least one group of malignant tumors, the carcinomata, could not at that time make the distinction now clearly recognized between simple or non-infective inflammations and

infective, and his followers, with less excuse, refuse to do so even now. We have many instances of local infective inflammations giving rise to metastases; not one, so far as I know, of the non-infective. The view that malignant tumors are of inflammatory origin is one which has spread widely among pathologists, especially since it has been found necessary to place the so-called granulomata, tubercle, lepra, and syphilis among the inflammatory diseases.

Tubercle, which may be taken as the representative of the granulomata, was long considered to be an ordinary inflammation in a tissue predisposed to disease. This is the standpoint which many pathologists occupy at present in regard to malignant disease.

Numerous attempts have been made to show that the anatomical peculiarities of tubercle tissue—epithelioid cells, giant cells, cheesy degeneration—are sufficient to account for all the peculiarities of the disease. The researches of Baumgarten and Weigert show that they represent only the reaction of the enfeebled cells under the irritation caused by the bacillus. A pathologist can hardly fail to be struck by the similarity of the enormously hypertrophied cells almost constantly found in sarcomata and carcinomata to the epithelioid and giant cells of tubercle, while the frequency with which they are found in a state of fatty degeneration, and the readiness with which they undergo spontaneous necrosis, remind us forcibly of cheesy degeneration. The discussion is not yet quite terminated among pathologists as to whether tubercle tissue always differs so much from other inflammatory products as to make the microscopic diagnosis possible in every case. In the same way the exact line between certain sarcomata and the products of chronic inflammation has never yet been drawn, while that form of tubercular skin disease known as lupus papillaris or verrucosis, commonest on the dorsum of the hand, and of undoubted inflammatory origin, is, as I have myself had occasion to observe, undistinguishable under the microscope from epithelioma.

Both tuberculosis, as seen by the surgeon, and malignant tumors are distinctly associated with traumatism. Thus Volkmann states that the great majority of tubercular bone and joint diseases are referable to an injury, while Formad alleges that he finds an inflammatory origin in nearly one half

¹ *Annals of Surgery*, Dec., 1885.

of all tumors. Dr. O. G. Zesas quotes S. Wolff's statistics drawn from tumor cases observed in the surgical clinic at Berlin between 1864 and 1873, according to which in 344 cases of carcinomata a trauma was given as the cause 42 times, and in 100 of sarcoma 20 times.

It is well known that sarcomata usually follow a single injury and carcinomata a long-continued irritation. The reverse, however, is by no means unknown. Thus Weil gives two cases of sarcomata attributed to repeated irritation. Dr. R. F. Weir has reported a case of scirrhus of the penis following a contusion received four months previously, and refers to a similar case reported by Holmes Coote. J. W. Hulke reported a case, occurring in a man aged sixty-eight, in which a small wound of the palate, made by the stem of a pipe driven into the mouth, was followed in a month by a small wart, which grew rapidly, and six months after extirpation recurred, extended rapidly, and caused the death of the patient. Microscopic examination proved the tumor to be an epithelioma.

If we deny the existence of a specific virus in these cases we are compelled to fall back upon the vague term predisposition, which was formerly used to explain the cases of tubercular disease having a similar origin. On the hypothesis of a non-specific inflammatory origin it would be difficult to account for the fact that in some countries malignant tumors are practically unknown. For surely contusions and chronic inflammatory processes with diminished resisting power on the part of the connective tissue can not be wholly wanting in these places. One of the strongest objections made to the assumption of a specific poison in the case of malignant disease has been the absence of any evidence of contagion. Cohnheim denied the existence of a specific poison on the ground that the surgeon is never infected from his patient *or the husband from the wife*. It is well to remember that precisely the same objection was made to the tubercle bacillus. Many physicians of large experience declared that they had never seen a case of even probable tubercular infection; yet now the journals are filled with them, and while the surgeon seems still to be safe, the anatomist has not been spared.

Case 1. Mr. Thomas, E. C., æt. 40, married; New York, clerk. Family history good. Patient has varicocele on the left

side. Extirpation of encephaloid carcinoma of left testicle, of twenty-two months' growth, the size of a cocoa-nut, smooth, firm, and of fibrous consistency, January 3, 1879, by Dr. Sands. Death, January 26th, from suppression of urine, due to pressure on the ureters by metastatic growths in abdominal cavity.

Mr. C.'s widow subsequently married. Margaret Anne, New York City, æt. 40 years and 3 months, died while under my care, April 12, 1885, with carcinoma "*en cuirasse*," originating in the mammæ. Tumors were stated to have been first noticed in 1882, and in both breasts at the same time. Her mother, Mary Anne D., died January 30, 1885, æt. 81 years and 6 months, of acute bronchitis and bronchopneumonia. One month before her death the patient consulted me with regard to a rapidly growing tumor of the right breast, which she had first noticed one month previously. My diagnosis was probable carcinoma.

Case 2. Mrs. D., æt. 43, with good family history, was subjected to operation by Dr. Sands on May 3, 1882, for scirrhus carcinoma of the right breast of one year's duration. Recurrence took place about six months later, and the patient died about April, 1885. Mr. George D., æt. 47, husband of the last patient, came under observation on October 20, 1882, suffering from epithelioma of the superior maxilla. A younger brother died five years ago of what was said to be recurrent sarcoma of the testicle. Family history otherwise good. About three months ago the patient noticed a swelling in the left superior maxillary region, and thinks he noticed a hard lump beneath the left angle of the lower jaw some time before this. Both tumors have grown rapidly since. A tumor of soft consistency occupies the situation of the left superior maxilla, and extends in the direction of the malar bone. There is a mass of enlarged glands beneath the left angle of the lower jaw. Extirpation of the tumor and enlarged glands by Dr. Sands. Rapid recurrence and death in May, 1882.

Case 3. Miss Isabella S., admitted to Roosevelt Hospital May 25, 1885, suffering from a giant-celled sarcoma, involving the right superior maxilla, and said to be of three months' duration. Extirpation of the superior maxilla by Dr. Sands, May 27, 1885. Death from shock and hemorrhage following the operation. Mr. F. J.

G., æt. 20, single, was engaged to Miss S. for some months before her death. He was submitted to a surgical operation, on September 9, 1885, by Dr. Post, for the removal of a small giant-celled sarcoma of the right superior maxilla, said to be of only three weeks' duration. The tumor lay in front of the antrum, and did not occupy its cavity.

Case 4. Taken from Dr. Markoe's work on "Diseases of Bones," p. 266, 1872. Mrs. S. N. E., æt. about 23, consulted Dr. Markoe March 26, 1866, for a myxo-sarcoma occupying the right side of the neck, behind the sterno-mastoid, and about the size of a hickory-nut. Operation May 1, 1866, when tumor was found closely attached to the transverse process of the fourth cervical vertebra. Recurrence after a few months, and slow growth until April 10, 1869, when a second operation was performed. Recurrence in fall of 1869, with gradually increasing paralysis, due to pressure on spinal cord. Third operation on January 25, 1871, followed by complete relief of all the symptoms and no recurrence up to the present time. Microscopic examination by Dr. Delafield showed the tumor to be a myxo-carcoma.

Mr. E., æt. 56, husband of the last patient, underwent, on January 19, 1885, an exploratory incision of the abdomen to determine the nature of an abdominal tumor, the symptoms of which dated from December, 1885. A soft, friable tumor was found matting the viscera together in such a way as to prevent the possibility of its removal. The tumor was considered by Dr. Markoe to be sarcoma, probably originating in the great omentum. The patient died about three days after the operation. No autopsy was obtained.

Case 5. Thomas C., New York, æt. 53, September 4, 1885; family and personal history good, especially no history of tumors or syphilis. Sixteen years ago the patient broke his left arm near the elbow, but recovered without stiffness or deformity. One month ago the left elbow and the right ankle became swollen, and swelling has increased rapidly since, without pain, redness, or tenderness, except over the internal malleolus, where the pain is quite severe. Examination shows sarcoma of the humerus and tibia.

While taking the patient's history, I incidentally elicited the fact that his wife had died last February, after a six weeks' ill-

ness, with sarcoma of the brain, as diagnosed by Dr. A. R. Robinson, of this city.

In Case 4 the long interval which appeared to exist between the last appearance of the disease in the wife and its occurrence in the husband may seem to deprive the case of all significance. When we consider, however, the extremely slow growth of the original tumor, as seen in Mrs. E., and how long a similar one may exist in the abdominal cavity without giving rise to symptoms, the objection loses much of its weight. The length of time also that a tumor histologically malignant may remain latent, as contrasted with the frequently rapid growth of the same or similar tumors, is, I think, not sufficiently appreciated by pathologists, and offers another striking analogy to tubercular deposits.

The possibility of direct inoculation of the human subject or of animals with malignant disease, has been much discussed, and many experiments made, with generally negative or doubtful results. I have only been able to find in the literature of the subject two at all well-authenticated cases of apparent inoculation. Meissner states that in 104 cases of melanotic sarcoma one patient gave inoculation from a horse with the same disease as the cause. In the discussion on Dr. Formad's paper, Dr. S. W. Gross quoted from the *Mag. für die Ges. Thierheilkunde*, 1862, p. 328, the case of an ulcerated medullary sarcoma in an ox. A woman who cleaned the sore every day acquired a tumor of the outer side of the fourth finger of the left hand. Kuhn examined the tumor and found it to be a medullary sarcoma. In a discussion by Dr. Mundé on cancer of the penis and contagion, the author states that Demarquay, in an analysis of 134 cases, found one where local contagion was alleged, and that Dr. Welch quotes Langenbeck as saying that he had seen three or four cases caused in the same way. Dr. T. Gaillard Thomas states he has only met with one case of cancer of the penis in which contagion seemed to be probable.

There are a great number of unsuccessful or doubtful inoculations of animals, for an account of which I must refer to the general literature given below, and especially to Dr. Formad's article. The only experiments which seem beyond question are those of Professor Klencke, who inoculated a dog in the jugular vein and a horse in the conjunctiva with juice from a pig-

ment carcinoma taken from a mare. In the horse in sixteen weeks the lachrymal gland was transformed into a melanotic tumor; the dog died in three months and melanotic tumor masses were found in the lungs. Novinski made twenty-seven inoculations of carcinoma from the nose of a dog into inflamed tissue and fifteen into normal skin. All of the first were negative. Two of the last positive. Successful experiment: A small piece of carcinoma (2 mm.) was introduced into a fresh wound of the skin of the back. The wound healed *per primam*. In fourteen days the fragment had reached the size of a pea, in three months, that of a walnut. Four months after the inoculation the dog was killed. The tumor measured three and a half inches in diameter, was soft and white in section. The lymphatic glands in the subclavicular region were much swollen. Microscopic examination of the tumor showed the peripheral part to be made up of closely lying polygonal cells, of epithelial character, and varying in size, infiltrating the surrounding connective tissue. In the centre were alveoli of various sizes, with more or less fine tubercles and similar epithelial cells. The same structure occurred in the lymphatic glands.

A young dog was then inoculated with a piece of this tumor, but died half a month later (of *pestkrankheit*). Examination showed a small tumor at point of inoculation; no metastases. Tumor showed typical cancerous structure. Dr. Gougon gives two cases which do not appear quite so conclusive. He injected melanotic masses into the left thigh of a dog and killed the animal after two weeks. At the point of injection was found a melanotic tumor the size of a thaler, and pigment in the lymph vessels and neighboring lymphatic glands. The lymphatic glands, including the bronchial, were enlarged and pigmented. Lungs free. The same material was injected into the peritoneal cavity of a second dog, which was killed forty-three days later. At point of injection and in the mesentery were deposits of pigment. In one horn of the uterus were two pigmented tumors. Few glands were affected; one much enlarged inguinal gland. The bronchial glands were pigmented, but this was possibly from the lungs. All the pigment was in epithelial cells, but these were not similar to those of the tumor injected.

There is another way, however, of studying the subject. It will not be denied that there is not at present a pathologist of eminence who does not teach that malignant tumors are at first purely local. Could it be shown that carcinoma and sarcoma could be transmitted from man to man or from man to animals, the idea that nothing but the cell was inoculated would not be able to hold its place in scientific opinion for six months. We have passed the stage when it was possible to believe that an infectious disease can be of spontaneous origin. Yet if the disease be at first purely local, the inoculation of a distant portion of the body in the same patient, the so-called contact infection, is as valuable as the inoculation of another person would be. Cases of this kind are not rare in literature. The chief recorded instances are the following:

Dr. M. Nedopil quotes a case, narrated by Lücke, of ulcerated carcinoma of the edge of the tongue, with inoculation of the mucous membrane of the cheek on the same side; a case by Kauffmann, in which a woman had cancer of the dorsum of the right hand and subsequently of the conjunctiva of the right eye. Her relatives stated that she constantly wiped the right eye with the back of the right hand. Cases by Ahlfeld, Hegar, and Spiegelberg, of direct inoculation of the vagina from the uterus, and cases by Klebs of inoculation of cancer of the tongue in the stomach. J. Reincke gives two cases in which carcinoma developed in the punctures made to relieve ascites due to carcinomatous peritonitis. Prof. H. Quincke gives a similar case. C. Bartsch, in giving statistics of carcinoma of the lips, penis, and vulva, relates one case of possible contact infection. P. Kraske gives two cases of rectal carcinoma in which small secondary tumors were found at a lower point, separated by healthy mucous membrane from the primary growth, and refers to Virchow's well-known observation on the peculiar distribution of carcinoma of the peritoneum secondary to carcinoma of the stomach; to the cases of Lücke, Kauffmann, and Klebs mentioned above, and to a case by Erbse, in which a carcinoma of the œsophagus perforated the trachea and gave rise to secondary tumors in the lower lobes of the lungs.

Beck records the following three cases from the institute of Chiari, Prague:

1. Ulcerating cancer of œsophagus. In

anterior part of lower end of œsophagus and in stomach tumor of the same character—flat epithelial carcinoma. 2. Carcinomata of the œsophagus separated by healthy tissue. The author admits the possibility of both being primary. 3. Multiple lymphadenoid round-celled sarcoma of most of the lymphatic glands, the lungs, spleen, and posterior surface of the stomach. In the ileum numerous similar nodules, not corresponding to Peyer's patches. In the cœcum an infiltration of almost the whole intestinal wall. The author excludes on various grounds all the other situations, and considers the growth in the cœcum as primary, and the other tumors in the intestinal tract as due to contact infection, the tumor particles being carried back by antiperistalsis; the tumor of the cœcum being ulcerated and having caused much obstruction.

Beck quotes also a case by Hjelt of carcinoma of the ileum and colon with primary cancer of the duodenum.

Two cases of the kind have come under my own observation, as follows :

Case 9. Mr. A., an elderly gentleman, probably between 50 and 60, suffered for several years from a slowly growing epithelioma of the floor of the mouth on the left side, and encroaching on the posterior surface of the gum. Several operations were performed by Dr. Sands at varying intervals, with temporary success, but recurrence after periods varying from two or three years to several months. After the fourth operation, December 18, 1884, rapid recurrence took place. A flat epithelioma developed on the hard palate, first at the point where the tip of the tongue, constantly in contact with the epithelioma in the floor of the mouth, would frequently impinge. The diagnosis in this case was confirmed by repeated microscopic examinations.

Case 10. Mary M., æt. 44, single, March 29, 1884. Family history good. No case of malignant disease known. Carcinoma of right mamma first noticed two years ago. Amputation of breast one year later. Axilla not opened. Recurrence noticed last October. Patient first seen March 29, 1885, suffering from carcinoma, recurrent in cicatrix of operation, the new growth extending as nodular masses, ulcerated in part, over almost the whole of the right side of the thorax, anteriorly, laterally, and posteriorly to the external border of the scapula. Ax-

illary glands on the same side much enlarged, and the whole right extremity enormously swollen, œdematous, and painful. On left side of the thorax, above the mamma, and on the left shoulder, are several isolated, not ulcerated, cancerous nodules, varying in size from that of a split pea to three fourths of an inch in diameter, and not extending beneath the skin. Profuse sero-purulent discharge from the ulcers. Patient was last seen June 23, 1885, when the carcinoma had extended over the upper part of the abdomen and a greater part of the right scapula and shoulder. Ulceration of the carcinomatous masses in the axilla had occurred. The discharge from the ulcers on the shoulder and in the axilla constantly runs down on the anterior and internal surfaces of the arm and forearm to the wrist, exciting an eczema and inducing the patient to scratch. *All along this surface are cancerous nodules in the skin,* generally ulcerated or excoriated on the surface; some isolated, others confluent, and extending to the wrist. Died of exhaustion, July 10, 1885.

I may mention here one or two more interesting points of analogy between tubercle and malignant tumors. The former appears usually as a more or less chronic and localized disease. It occurs also as an acute infectious disease—acute miliary tuberculosis—involving the different organs with a rapidity that was a complete mystery to the pathologist until the views of Weigert, founded on careful anatomical research, were confirmed by the demonstration, by Weichselbaum, Baumgarten, and others, of tubercle bacilli in the blood. Raymond and Brodeur record a case of primary acute miliary carcinosis, and refer to two similar cases by Charcot. Numerous cases have been reported, during the last few years, of general tuberculosis following operation on a local process, the operative interference having obviously opened the way for the bacillus into the general circulation. A precisely similar general cancerous infection has been reported by Dr. Schwenger as follows :

Girl, æt. seventeen, single. Operation for colloid carcinoma of both ovaries. The tumors were punctured shortly before the operation, for diagnostic purposes. During the operation one of the tumors was torn. No reaction. Wound practically healed in ten to eleven days. From this time on a continued fever, of remittent character, di-

minished power and sensibility in left arm and leg, with severe neuralgic pains and cramps in the affected extremities. Rapid extension of these symptoms to right side, bronchial catarrh, increasing weakness, and death thirty-six days after the operation. Post-mortem examination showed that the peritoneum was thickly covered with carcinomatous nodules, varying in size from that of the head of a pin to a pea. Similar nodules in the liver, spleen, beneath the pleura, and in the parenchyma of the lungs, and on the surface of the dura mater. In the interior of the brain was a colloid tumor, about the size of a hen's egg.

Finally, it is with some hesitation that I state that I have found bacilli in a single case of rapidly growing, not ulcerated, large-celled sarcoma of the occipital region, occurring in a woman, and extirpated by Dr. Sands during the past year. The tumor tissue had been kept in 95 per cent. alcohol since the operation, and the sections were stained with fuchsin by a slight modification of DeGiacomi's method for staining the bacillus of Lustgarten. The modification consisted merely in more prolonged immersion in the staining fluid and may not have been essential. Every precaution was taken in the way of using sterilized vessels, reagents, etc. Of the two sections examined bacilli were found very sparingly in only one, and after prolonged examination. The examination was made with a Zeiss oil immersion one twelfth and Vêrick eye No. 3, using, of course, the Abbè condenser. Though few in number, the bacilli found were very distinct, only one being situated in each cell, straight, and apparently somewhat longer and plumper in proportion to their length than the tubercle bacilli. I know well, of course, that little or no scientific value attaches to a single observation of the kind by one man, unsupported by the evidence of any others, but mention it because it may acquire some if confirmed by future research, and at least serves to show that my work is not all theoretical, but practical as well.—*Annals of Surgery*, Dec., 1885.

Etiology of Tetanus.—M. Larger draws the following conclusions: 1. That tetanus is an epidemic affection. 2. That it can become endemic in all seasons, in a village and even in a stable or a farmyard, but never in the ward of a hospital; which inclines us to the opinion that the agent for producing tetanus exists in the soil, where

it finds conditions for its development and reproduction. 3. That finally tetanus is contagious. The fact that Arloing and Tripièr have obtained negative results from inoculation, demonstrate that the microbe exists neither in blood nor pus, but it does not prove that it does not exist in the medulla, the cord, or the nerves, for example, where he did not seek it, and where he would doubtless have found it some time, as they discovered the virus of hydrophobia.—*Bull. et Mem. de la Soc. de Chir de Paris*.

The Relation of Cold Abscesses in Scrofulous Children to Tuberculosis.

—Gesler, in an inaugural dissertation at Munich, 1885, studied seven cases of young children in which cold abscesses were associated with a tuberculous process either in the lungs, intestines, peripheral lymphatics, bones or joints, hereditary taint being wanting; tubercle bacilli being sought by a method modified from Ehrlich's. In no preparation made from the cases recorded were bacilli found; the fungous granulations contained lymphoid and spindle cells, capillary blood-vessels and giant cells. (In preparations rich in bacilli put through the same process the organisms were visible.) The contents of abscesses and granulation tissue introduced under the skin or into the peritoneal cavity of rabbits and guinea-pigs excited no tubercular trouble.—*Cent. für Chir.*, Dec. 19, 1885.

On the Relation of Micro-Organisms to Suppurations.—Klemperer in the *Zeits. für klin. Med.*, 1885, Bd. x., p. 158, has undertaken new experiments, and has decided that the micro-organisms are the causes of suppuration. He 1st., according to the work of former authors, who, after the injection of chemicals, by keeping away micro-organisms, prevent suppuration, confirms with few exceptions their systematic experiments. 2. The injection of alkalies and organic and inorganic acids never produces suppuration if microbes are kept away. 3. Cantharidin, oil of mustard, and petroleum excite violent inflammation, never suppuration. 4. Croton oil, turpentine, and mercury excite the most violent inflammation. The injection of smaller amounts produces a serous inflammation which quickly subsides if micro-organisms are not introduced. 5. The injection of larger amounts of turpentine, and croton oil in oily solution, and mercury, produces a sort of necrosis with fibrinous inflammation. 6. The injec-

tion of a larger amount of alcoholic solution of turpentine and croton oil produces a serious inflammation which goes on to speedy absorption. 7. But when, with turpentine, croton oil, and mercury, micro-organisms are introduced under the skin, a purulent inflammation is lighted up; in this pus micrococci appear; these can be bred artificially, provided the transfer takes place before the death of the microbe ensues. 8. The suppuration depends upon a quantitative and qualitative alteration of the inflammatory processes. The quantitative peculiarity consists in the large extravasation of white blood corpuscles and the interrupted function of the diseased part. The qualitative difference consists in the stagnation of purulent exudations; for all that the existence of fibrinous production is not to be doubted. 9. Both the quantitative (a) and the qualitative (b) difference between purulent as opposed to other inflammations, helps to clear up the living qualities of micrococci. (a) The active extravasation of leukocytes, as also the general functional disturbance, is explained by the supposed inflammatory secretions and wholly poisonous products of the cocci. Their progression is by means of the vessels. (b) The stagnation of the pus depends upon the want of fibrinogen. It is certain that these producers of fibrine are changed into peptone by the cocci. The peptone-making power of the cocci, together with the peptone-retaining power of the pus, is proven.—*Central. für chir.*, Dec. 19, 1885.

The Origin and Causation of Suppuration by Chemical Irritants.—Dr. E. Scheuerlen, in the *Arch. f. klin. Chirurg.*, 1885, vol. 32., Hft. II., has made further studies on the origin of suppuration. The doctor took common fusiform lymph tubules of glass, which suck up the experimental fluid by capillarity and can be easily sealed by melting their ends. In the first of two series of experiments he used those holding nearly or quite a drop, in the second those holding about four drops. These prepared tubules were then exposed in Koch's apparatus to a current of steam of 100° C. for half an hour.

The following substances were tried: Oleum terebinth., ol. crotonis (1:5 ol. olivar.), ol. sinapis (1:5), ol. cantharid., ol. carophyll., ol. macidis, ol. sabinæ, ol. cajeputi, ol. juniperi, tartar. stibiat. (1:3 aq. destil.), inf. rad. ipecac. (5:50), decoct. fruct. caps. (5:50), and acid. formic. Ster-

ilized water was used for control experiments.

He introduced the little spindles by means of a hypodermic-like needle 10 cm. long, with a rod in its interior, adjustable by a screw. In this way the little spindles could be passed well under the skin with the smallest possible wound. Only rabbits were experimented with—32 in all. As a disinfectant $\frac{1}{10}$ % sublimate solution. He always punctured between vertebral column and crista ilei. A spot slightly larger than a half-dollar piece was clipped and thoroughly washed with the sublimate; this he considers preferable to the apparently more thorough methods of producing eczema. The needle, spindle, etc., are laid in the sublimate; a current of the disinfectant plays on the spot to be punctured; this is raised and the tube introduced, when the spindle is pushed out at the point desired.

The slight wound did not need suturing, but was covered thick with iodoform colloidum, especially to prevent the animal licking it.

The subsequent course was in general as follows: The tube lay without any reaction beneath the skin. After 8 or usually 10 to 14 days it was smashed—the external wound having entirely healed. A day or two later a slight swelling appeared at the point where the spindle was broken, increased to the fourth day, remained stationary until about the twelfth, and then slowly diminished. The lump felt hard, but was freely movable in the loose tissue; fragments of the glass could not be felt. The rabbits were killed four to eight days after smashing the tubule. The circumscribed lump had on section a yellowish white color, separated by a sharp contour from the bluish-white subcutaneous tissue, and resembled a lump of fat, though less yellow, and presenting a smooth surface. Muscle and skin were not affected.

The size of the tumors varied in the first series from 3 to 4 cm. in length, $1\frac{1}{2}$ to 2 cm. in breadth, and $\frac{1}{2}$ cm. about in thickness; in the second series from 5 to 6 cm. in length, 3 to 4 in breadth, and about 1 cm. in thickness. Ipecac.-infusion, pepper-decoction, tartar emetic, oil of cantharides, and formic acid were the least active, the others nearly equal.

In Councilman's experiments pus was found where here there was an organized firm tissue. Pressure here brought clear

lymphatic fluid to the cut surface—no pus. Fragments of the tubules—where the latter were not entirely crushed—contained the same clear fluid and even young fibrous connective tissue.

Microscopic examination of the capsule from preparations hardened in alcohol, showed, when colored with methyl-violet or Löffler's alkaline methyl solution, a cellular infiltrated connective tissue more charged with cells towards the inner surface adjoining the tubule; these at some points almost hid the intercellular substance. Bacteria were never found. In nine cases immediate cultures were tried with negative results.

Not only the macroscopic and microscopic examination showed that the substance was not pus, but also the fact that it could be hardened in alcohol and cut. Moreover, in the only case where the animal was allowed to live 14 days, the entire inflammatory growth disappeared; a thin fibrous layer, in color not distinguishable from the other subcutaneous tissue, surrounded the remains of glass. Two experiments with sterilized water produced no swelling; only a rather thin veil-like accumulation of connective tissue was found.

In one case only did he get pus—and here a thin cord reached to the point of puncture, which had not healed; here a few micrococci were found.

He concludes that chemical irritants in quantities such as here used are only able to produce inflammation, never suppuration.—*Annals of Surgery*, Dec., 1885.

Prevention of Lymphangitis, and Abscess of the Breast During Lactation.—Among the predisposing causes of this affection, according to M. Ressen, are, first confinement, deformities of the nipple, color of the integuments, which makes blondes having generally a finer skin the more subject to the disease; and finally the production of fissures in a preceding lactation.

Among occasional causes are: bad condition of the mouth of the child, uncleanness, irregular nursing, which produces a constant maceration of the skin.

In spite of the presence of these different causes, lymphangitis and abscess can be avoided by the use of a 3-per-cent. solution of boracic acid. After each nursing he applies a thick compress saturated with the solution.

To prevent the evaporation of the liquid, he puts over the compress a piece of rubber

cloth and over this some cotton. This is held in place by a bandage which also sustains the breasts, maintains them at a constant temperature, and exerts a compression upon the organs which tends to prevent the development of pus. Finally, as the last advantage, boracic acid has no poisonous effect upon the child.—*Rev. de Thérap.*, Dec. 1, 1885.

The Prevention of Mammary Abscess.—Instances are not infrequently met with where the function of lactation is either not advisable, as in cases of syphilitic taint, marked tendency to phthisis, epilepsy, etc., or where, from the child being still-born, or the nipples depressed, subject to cracks, fissures, or erosions, the function of lactation is unnecessary or unable to be persisted in. Apart from these conditions there is unquestionably a growing tendency for mothers to avoid the responsibility of suckling their offspring. Milk is secreted, and if it be not drawn off at appropriate intervals the breasts become engorged, and not unfrequently inflamed, mammary abscess resulting. From whatever cause it may be, we are often obliged to take steps to prevent such a contingency.

For many years the old-fashioned methods in general vogue, if not advocated, were at least tacitly acquiesced in, such as rubbing the breasts with sweet oil, oil and extract of belladonna, glycerin and belladonna, belladonna plasters, evaporating lotions, strapping the breasts, and other like expedients.

It being believed that friction of any kind in the large majority of cases rather tended to produce than prevented mammary abscess, it was long since discarded. The application of a long strip of belladonna plaster, sixteen or eighteen inches long and six to eight inches deep, with round apertures, so as to leave the nipples free, tightly across the chest, the breasts being brought well up towards the median line, for many years was the only resource adopted, beyond careful regulation of the diet, abstention from fluids, gentle purgation, etc. This method never failed; but it was often found that the smell of the belladonna produced so much nausea in delicate patients as to preclude the employment of it.

Thinking that in all probability the pressure exerted contributed greatly to the advantage derived, Dr. Arthur W. Edis (*Brit. Med. Jour.*, November 7, 1885)

was induced to rely upon a few turns of a rib-bandage, or the application of a thin towel or diaper across the chest, the breasts being brought well towards the sternum. Since adopting this method he has never known it to fail. Not a single instance of mammary abscess has occurred in a long series of cases, extending over several years. The only precaution requisite is to apply the pressure on the second day following parturition, before the breasts begin to fill, and to see that the whole of the glands are included.

It is well to elevate the shoulders somewhat more than usual, and not allow the bedclothes to cover the upper part of the chest, the sheet alone sufficing to prevent any risk of chill. Restriction as to the amount of fluid for the first few days and attention to the bowels are all that is requisite to insure success. Some little inconvenience—a feeling of tightness or burning pain—is often experienced; but if the pressure be maintained no harm results, and within the course of a few days the turgescence subsides and the difficulty is at an end.

In order to keep the bandage or towel from slipping down, a shoulder-strap from back to front, or merely pinning the bandage to the night dress, suffices.

Where the secretion of milk appears to be unusually abundant, a mixture of bromide and iodide of potassium may be prescribed with benefit. In only a very few instances has it been found requisite to draw off a small quantity of milk by means of a breast-pump or exhausted soda-water bottle, and this only once or twice.—*Therap. Gazette*, Dec. 15, 1885.

Iodoform.—George M. Foy, F.R.C.S., thinks that the statement that the free use of iodoform as a surgical dressing caused the death of eleven persons (*La France méd.*, Nos. 30 and 31, 1882) is sufficient warrant to justify calling attention to the fact that picric acid is often present as an adulterant, or impurity, in commercial samples of iodoform. He says: "The adulteration may be detected by shaking some of the suspected sample with cold water; if picric acid is present, a yellow color is given to the water, and if some of this colored water is now added to a weak solution of cyanide of potassium, and allowed to remain at rest for a short time, a brown color is developed, due to the formation of isopurpuric acid.

The purity of iodoform is of the greatest consequence to the surgeon, because, although the pure chemical is non-poisonous, the impure is poisonous.

It is always well to remember that certain substances which have been recommended as deodorants, decompose the chemical. This is the case with tannic acid and balsam of Peru. The general use of the chemical, and the objection of patients to its strong smell, cause many to engage in the search for a harmless deodorant. Dr. Charles Pettit Stout, in the *Therapeutic Gazette* for August, recommends vanillin ($C_8H_8O_3$), the odorous principle of vanilla, and commarin ($C_9H_8O_4$) obtained from Tonquin bean. These agents, however useful they might be, are far too expensive for general use, and in suggesting cimiacuic acid ($C_9H_8O_3$) the author selects an agent of more promise. Cimiacuic acid is of itself a valuable and agreeable antiseptic, and as it is now produced synthetically by heating malonic acid and benzaldehyde, in molecular proportions, in a sealed tube at 140° for several hours, there is hopes of a useful and not too expensive a remedy being procurable. There is, however, the risk that such a mixture as the author recommends, iodoform, 9 parts, cimiacuic acid, 2 parts, if kept in a warm place or exposed to the light, would produce in time decomposition of the iodoform.

Dr. Oppler, of Strasburg, recommends roasted coffee, and if it was not insoluble, and being so, might act as a foreign body in surgical dressings, it would receive general acceptance. Coffee has been long a popular deodorizer. I fear that the nature of iodoform is such that, owing to its volatility and small percentage of hydrogen, we can hardly hope to secure a harmless deodorizer for it. The search was commenced in 1882, immediately after Serulles discovered the chemical, and still continues.

Amongst the most recent uses of the drug is its internal use for gout by Prof. Testa (*Gaz. Med. di Torino*) in from 1½-gr. to 3-gr. doses daily. He says under the influence of iodoform the quantity of urea is increased, owing to the conversion of uric acid into urea, and, therefore, the uric-acid excretion is diminished. Oxalic acid being converted into water and carbonic acid, oxalurea is lessened. The amount of uric acid in the blood is lessened. Consequently he considers iodoform a rational

remedy for gout. In seven cases in which it was tried, the intensity and duration as well as the frequency of the paroxysms were lessened.

In phthisis the drug is not meeting with the approval which was anticipated from the favorable reports of Prof. Renzi of Naples (*Revista Clinica e Ther.*, Aug., 1884) and Dr. Ransome (*Brit. Med. Four.*, Jan., 1884). Dr. DiVesta has given iodoform vapor a fair trial in this disease, and did not find any influence of the drug either on the local morbid process or on the constitutional conditions of the patients (*Morgagni*, 1885, Fasc. 5); and contrary to the experience of Drs. Ransome (*Brit. Med. Four.*, Jan., 1884) and Dreschfield (*Brit. Med. Four.*, 1882), he finds its internal use to distinctly increase the pyrexia.

Iodoform, however, holds its own as a valuable local remedy in gleet, and probably the most convenient method of use is Dr. Cutter's pencils, especially when injections cannot be conveniently used. Their disagreeable smell is completely concealed by covering them with a thin coating of gelatine, which in no way lessens their efficacy.

The use of iodoform as a dressing for syphilitic sores is very general, but Pickel, of Erlangen (*Wien. med. Wochenschrift*, June 12, 1885), recommends an ethereal solution, used both hypodermically and as a spray, giving about four grains daily. He believes it to be beneficial in primary, secondary, and tertiary syphilis.

Injections of ether usually give a good deal of pain, and in some cases cause sloughing, as I have experienced in my own practice. Herr Hadra showed a patient at the Berlin. med. Gesellschaft, 1885, suffering from paralysis of the right arm from ether injections for *post partum* hemorrhage. Consequently I think it very unlikely that an ethereal solution of iodoform for hypodermic use will ever be much used.

The external application of the drug in powder to raw surfaces occasionally produces unpleasant results. Thus, in a case in which after operation I dressed the surface of the wound with iodoform, I noticed that when granulations commenced every application of the chemical caused purging; the sample was chemically pure; the patient was a young, healthy woman, and had no dislike to the smell. To test the matter I discontinued the iodoform for a few days, and the purging ceased, and

recommenced its use with the result that the purging was renewed; the amount of iodoform dusted on the surface influenced the purging. On one occasion a much larger quantity than usual was applied, and the purging became so violent that it was necessary to give opium to control it.

I fear we cannot succeed in removing the smell of iodoform, and our energies would, I believe, be more profitably spent in seeking a similar, but odorless, therapeutic agent amongst the iodine substitution products of the secondary alcohols of the methyl, ethyl series."—*The Medical Press*, Dec. 9, 1885.

Notes on the New Antiseptics, Hydronaphthol and Potassio-Mercuric Iodide.—The following, according to Dr. R. J. Levis, are the claims made for the newly discovered antiseptic, hydronaphthol.

It is at least twelve times as effective as carbolic acid, and is entitled, as a true antiseptic, to occupy a position in the comparative tables next to the mercuric bichloride.

It is thirty times as potent as salicylic acid, sixty times as effectual as boric acid, and has six hundred times the antiseptic power of alcohol.

Hydronaphthol is soluble when placed in cold water, to the extent of one part in two thousand. It is soluble in hot water in the proportion of one to one hundred; but when the water becomes cooled to ordinary temperatures, a precipitate occurs, leaving a solution of one to one thousand. In this strength of one to one thousand it permanently prevents the development of the germs of putrefaction in all putrescible fluids.

Whilst the true antiseptic or *inhibitory* action of hydronaphthol in such cold aqueous saturated solution is perfect, its germicidal and proper disinfectant power is ineffective. For the destruction of already existing germs—such as have a tenacious vitality, as those of anthrax bacilli and pathogenic micrococci—it, therefore, cannot be relied on. As to its action in this regard, as compared with carbolic acid, it should be remembered that a ten-per-centum carbolic solution is required—a strength practically improper in wound treatment. In ordinary antiseptic practice, carbolic acid is valuable only on account of its inhibitory action.

The first use of hydronaphthol as an anti-

septic was by Dr. G. R. Fowler, of Brooklyn, to whom the profession is indebted for its introduction to practical surgery. My own experience with the antiseptic action of hydronaphthol in the wards of the Pennsylvania Hospital and in private surgical practice confirms his observations, as given in his recent articles in the *New York Medical Journal*.

Hydronaphthol is a grayish substance, in the form of crystalline lamina, having a slightly aromatic taste and odor. It is soluble freely in alcohol, ether, chloroform, glycerin, benzole, and the fixed oils.

In the aqueous saturated solution of one to a thousand it is absolutely unirritating, and has no toxic action either local or systemic, is free from unpleasant odor, and has no injurious action on metallic instruments or on clothing fabrics.

Besides its use in aqueous solution, I have used it in the form of a powder diluted, preferably with the oxide of zinc, in the proportion of one to fifty.

I believe that hydronaphthol may well displace carbolic acid from practical surgery.

The potassio-mercuric iodide is four or five times as powerful, as a true germicide or disinfectant, as the mercuric bichloride. For such use it is effective in aqueous solutions in the proportion of only one to twelve thousand.

The potassio-mercuric iodide is made by simply dissolving equal quantities of the biniodide of mercury and the iodide of potassium in distilled water. The solution is evaporated, and there remain yellow, needle-like crystals of the potassio-mercuric iodide.

In the use of such dilutions of this powerful antiseptic, local irritation is entirely avoided, and the risk of producing the constitutional effects of mercury is greatly diminished.

The introduction into surgical treatment of these two remarkable and powerful substances, hydronaphthol and the potassio-mercuric iodide, will do much to overcome some of the objections and inconveniences of antiseptic practice. — *Coll. and Clin. Record*, Jan. 1, 1886.

Peroxide of Hydrogen as an Antiseptic.—John Wood, F.R.S., in a December lecture on "Antiseptics in Surgery," at the Royal College of Surgeons, said: "I have lately been trying a dressing little open to the suspicion of noxious effects. It

is a solution of the peroxide of hydrogen or oxygenated water, a preparation well known for its chemical efficacy, and manufactured in quantities for the purpose of bleaching hair. It is, I believe, absolutely non irritating, and is very convenient in its application. A piece of absorbent cotton is dipped into the solution, squeezed over the wound as a wash, and then laid upon it as a dressing. Over this a piece of thin gutta-percha tissue or oil-skin is laid, and covered with a layer of absorbent or salicylated cotton-wool, and bandaged lightly. In deep sinuses and irregular wounds, it may be used with a syringe or irrigating apparatus and double tube.

As a microbicide, the peroxide of hydrogen is one of the most powerful agents known. So small a proportion as one part in 2000 is efficacious in preventing the beginnings of putrefactive fermentation, and destroying the activity and propagation of bacteria and micrococci of all kinds. It is absolutely innocuous, and is quite free from any suspicion of local or constitutional irritation. Its active properties are due to oxygen in the form of ozone, an agent which is a normal constituent of the healthy blood, and upon the action of which has been founded a theory of the neutralization of the bacteria present in the tissues of healthy animals, and the prevention of the propagation changes which they may undergo, rendering them active agents of septic infection under certain conditions of the system, which a plentiful supply of ozone may remedy. It is, however, an unstable and easily decomposed compound, prone to change by easily giving off its supercharge of nascent oxygen. This property is in many conditions, certainly advantageous; the gaseous oxygen in the condition of change enters all the intricacies and pouches of a sinus, abscess, or joint cavity, and thus effectively fulfils its antiseptic mission. It has, I believe, a decided and remarkable effect in diminishing and arresting the formation of pus-cells. For clearing suppurating joints it may be used with great advantage. I have used it of the strength of 1 in 500, or even stronger, for this purpose, by means of an ordinary irrigation apparatus, provided with a double, or entrance and exit, tube. It can be carried in a concentrated form in a well-stoppered blue bottle, kept from the light, and diluted with pure water to the required strength. Its weak point is its instability;

the ready escape of its effective gas renders it less applicable as a permanent dressing. If so used, it should be well covered with gutta-percha tissue, or associated with a more permanent non-gaseous antiseptic, such as sulphate of copper, or chloride of zinc. It is not very costly, being made in large quantities for bleaching purposes, and may become cheaper in consequence of greater demand and easier supply.—*Brit. Med. Four.*, Dec. 19, 1885.

Gastrostomy and Jejunostomy.—

Four good papers on these cognate subjects were read and discussed at the last meeting of the Clinical Society, as will be seen by reference to our report of the proceedings published on another page. The features of the disease, for which the operations were performed, varied in each case. In the first three instances, gastrostomy was done to avoid starvation, as there was stricture of the gullet, due in two of the cases to malignant disease, and in the other case (that of a boy, aged four years) to the swallowing of a caustic alkali. This last patient, though in a condition of almost impending death when operated upon by Mr. John H. Morgan, has since gained weight and strength. Of the two other cases, one related by Mr. Barwell, and the other by Mr. C. T. Dent, the latter showed how futile the old operation of œsophagotomy would have been, as there were two malignant growths in the gullet, the lower of which completely blocked the tube. In fact, the outcome of all recent discussion would seem to narrow surgical interference in advanced cases of this malady to two chief procedures; either that of introducing the elastic funnel-shaped tubes, devised by Mr. Durham, which the patient can wear, and through which a way to the stomach can be maintained, or else the alternative of gastrostomy. The evidence which has accumulated in favor of the tube-plan is now so considerable, that it seems worthy of being first adopted; since, if the patient can come to tolerate the presence of the instrument, it offers an immediate means of relief. As a last resort, gastrostomy, as at present performed, is doubtless a much less serious procedure than a few years ago it was considered to be. Mr. Barwell, for instance, at the end of his excellent paper, showed that, before the period of antiseptics, and of the two-stage method, thirty-one cases afforded but one recovery; whereas, since that epoch, 135 cases had

yielded fifty-eight recoveries—that is, 3.22 and 44.5 per cent. respectively. These later good results, it is to be expected, will, in the immediate future, be still further surpassed, just as ovariectomy has risen from a position of being almost constantly, thirty years ago, a fatal operation, to that of being attended now by a very small percentage of mortality. Then, if surgeons should come to interfere at an earlier stage of the disease, the large number of deaths occurring soon after the operation now ascribable, not to peritonitis, but to exhaustion, might be postponed, at any rate, until a period of many months thereafter. Mr. Golding-Bird's important case of jejunostomy brought to light some of the difficulties which surgeons have to encounter in the operations upon the upper part of the small intestine which disease of the stomach and duodenum entails, if any operative procedure is to be attempted. This case, and that detailed later in the discussion by Mr. Pierce Gould, both point to the conclusion that this operation is decidedly to be preferred to that of pylorotomy, though a larger number of cases than has been hitherto detailed must be published before definite results can be drawn. Apparently, there is scarcely any region in the abdomen now left which has not been appropriated for the performance of some special surgical procedure.—*Brit. Med. Four.*, Dec. 5, 1885.

A New Method of Performing Excision of the Wrist and Ankle, by A. W. Mayo Robson, F.R.C.S. — Several years ago Professor Lister showed that failures in excision of the wrist were due to two chief causes, viz.:

1. The whole of the disease not being removed.

2. Injury to the tendons.

He, himself, proposed an operation, which since that time has been almost exclusively performed in excising the wrist-joint. Professor Lister's operation, which is both complicated and tedious, and the one by a transverse incision across the back of the joint, dividing all the extensor tendons, were the only modes of excising the carpus which I had myself witnessed, or had seen described, before I performed the operations mentioned below. The manifest disadvantages of these two methods led me to think out a way by which the joint could be thoroughly exposed without dividing any tendon or wounding any vessel or

nerve of importance. It occurred to me that by a single posterior median vertical incision this might be done, and it was not until after I had operated on three cases that my attention was drawn to a German work on surgery, in which Langenbeck's method of performing excision of the wrist by a vertical incision is described; which, however, differs from mine, in that his incision is more external, divides one of the extensors of the wrist, and if prolonged may divide the extensor secundi internodii pollicis; whilst being away from the middle line it does not so fully expose the joint. The operation which I have performed is as follows:

The hand being prone, the knife is entered over the proximal end of the third metacarpal bone, and carried vertically upwards for about an inch and a half, passing over the centre of the groove in the back of the radius, which lodges the common extensor of the fingers. After dividing skin, superficial and deep fascia, the extensor communis digitorum is seen, the knife being carried down to the bone between the tendon for the index finger on the outer side, and the tendons for the three inner fingers on the inner side; in this stage the tiny posterior carpal artery will possibly be wounded, but will probably not require a ligature. The finger is now passed into the wound to ascertain the amount of disease, which, if limited, as in Case 1, may be removed without further incision; but if more extensive, will require the incision to be prolonged upwards and downwards, as far as may be needful, which prolongation, however, does not divide any thing of importance.

The sides of the wound being retracted, the raspatory, with the occasional aid of the knife, enables the whole of the joint to be fully exposed, and after the carpus has been taken away the ends of the radius and ulna can be made to project completely through the wound, when the saw can be applied; the ends of the metacarpal bones, if diseased, can either be removed *in situ* by means of bone nippers, or can be made to project so as to allow the saw to be used. After all disease of the soft parts has been scraped or cut away, the wound is thoroughly washed out with a solution of perchloride of mercury, the line of incision being brought together with sutures, and a drainage-tube left in for a few days. I prefer making a new opening for the

drainage-tube at the most dependent part, close by the extensor tendon of the little finger, and entirely closing the original wound; the hand and arm are then placed on a splint, which after a short time is shortened sufficiently to allow the fingers to be freely moved.

Whilst I was planning the operation for excision of the wrist it occurred to me that by a similar vertical but anterior incision, I should be enabled to fully expose and excise the ankle-joint without any division of tendons or nerves, and without wounding any vessel of importance. I have only had the chance of carrying out my idea in the cadaver, a fit subject for operation not having come before my notice within the last year, but I may say that the operation has been performed by one of my colleagues at the Infirmary, and he was able both to expose and remove the whole of the diseased parts with facility. The line of incision is external to the extensor proprius pollicis and the anterior tibial vessels and nerve, but internal to the extensor longus digitorum, the only vessels wounded being the external malleolar and possibly the tarsal artery, both of them small and easily ligatured, if they do not spontaneously close.

This incision can be most easily and harmlessly prolonged upwards and downwards without any further division of parts of importance; after retracting the sides of the incision a free view of the front of the joint is obtained, and on dividing the internal and external lateral ligaments of the ankle, if they are not already destroyed, and extending the foot forcibly, the astragalus comes forward into the wound and can be partially or wholly removed; the ends of the tibia and fibula can be cut off, *in situ*, by means of a Hey's saw, or can be made to project and be removed by a Butcher's saw. Drainage is easily effected, either by a new opening, posteriorly by the side of the tendo Achillis, or through the original wound only partly closed.—*Arch. of Pediatrics*, Dec. 15, 1885.

The Deformation of Projectiles by the Bones.—Dr. Bousquet concludes an article on the above subject with the following remarks:

1st. Balls, on reaching the bones, undergo, according to the direction at which they strike the tissues, deformations which are of two varieties: deformation on the end and at the side.

2d. Deformations of the end, very variable and amounting even to a complete flattening of the ball, correspond in their degree to different osseous lesions: simple impression, fractures with large lateral splinters, and radiating fractures.

3d. The total flattening of a ball is not possible when there exists a complete fracture. If the velocity of the projectile is insufficient to overcome the resistance of the bone, we find at the point of contact a simple indentation, and, on the opposite side, one or more cracks.

4th. Lateral deformation corresponds, in most cases, to a simple contact on the side of the bone; under which circumstances there exist, notwithstanding fissures, also fractures with large splinters, but without displacement of fragments.

5th. Every time that a ball remains in the soft parts and can be extracted without inconvenience, the surgeon ought never to neglect to examine its deformations; he can often draw valuable diagnostic conclusions from such indications.—*Bull. et Mém. de la Soc. de Chir. de Paris*, Nov., 1885.

An Enormous Vesical Calculus Removed by the Perineal Operation.

—Dr. T. R. Varick, of Jersey City, presented a stone which weighed seven ounces and four scruples troy, and measured six and three quarter inches in its longest circumference, and five and a half in its shortest, removed, by the bilateral perineal operation two days before, from a Swedish boy, fourteen years of age, who had suffered from vesical symptoms for six years. No little difficulty had been experienced in extracting the stone, but the patient had done well since the operation, and seemed likely to recover. The stone had a nucleus of uric acid, surrounded with urate of ammonium, triple phosphates, and again urate of ammonium.—*N. Y. Med. Four.*, Jan. 2, 1886.

Concentric Enlargement of the Wrist in Hereditary Syphilis.—This enlargement of the extremities of the ulna and radius in hereditary syphilis, says Dr. R. O. Engram, so far as I am informed, has not been previously commented upon by medical writers, and if it has thus far attracted the attention of the profession I am ignorant of the fact.

My cases have occurred in children ranging from one month up to one year and six months of age. Dr. Vinson's case occurred in a child about twelve months old.

The concentric enlargement has more the appearance as if two fine silk ligatures had been tied around the wrist immediately above the joint, the strands being placed about half an inch apart and tied tight enough to hide themselves in the flesh. To the touch they have all the dense hard feeling that callus does when thrown about a fracture.

This condition often produces distortions accompanied with symptoms which are calculated to mystify the medical attendant. With the pain and swelling it might very well be mistaken for articular rheumatism. This peculiar drawn condition was due, no doubt, to excessive hypertrophy of the bone under the extensor muscles, drawing them taut.

A case fell under my care in the early part of 1884 which very much simulated fracture of the lower extremity of the radius.

This case was very interesting, as crepitation could be distinctly detected on motion of the hand at the wrist-joint. This perhaps was produced from deposit or other abnormal condition of the wrist-joint. Dr. Vinson's case was similar to this, except there was no crepitation. The doctor's case might have well misled, as the child had a fall a day or so previous to falling in his charge. He was undecided as to a fracture, but with his thorough knowledge of such fractures, he was inclined to a contrary opinion.

These cases have all been treated satisfactorily with mercury. I have used in all but three of my cases the proto-iodide, in the others the bichloride, with tonics. (Huxham's tincture of bark).

One case, owing to necrosis of the ulna, necessitating operative interference, showed me the opportunity of observing the condition of the bone, which allowed great thickening of the periosteum, with hypertrophy of the lower extremity of the two bones of the forearm.

Dr. Vinson treated his case with inunctions of mercurial ointment rubbed in the groins and armpits. He informs me to-day (April 13, 1885) that it has been relieved from the trouble.—*Atlanta Med. and Surg. Four.*, Jan. 1886.

Urethral Chancre.—Dr. Elkin reported a case of syphilis in which the initial lesion was situated in the urethra. The patient, a negro boy, consulted him September 14, 1884, concerning a slight

gleety discharge from the urethra, accompanied by more or less pain on urinating. These symptoms had continued quite two months, during which time the boy had used various astringent injections, together with internal remedies, for the purpose of curing what he supposed to be a clap. Dr. Elkin did not make a careful examination on the first visit, but supposing the case to be one of chronic gonorrhœa, the treatment was directed to that end. As the symptoms did not subside after several days' treatment, he made a more thorough investigation into the nature of the case, and by the introduction of bulbous-pointed sounds in the urethra and palpation along its floor he was enabled to locate a circumscribed induration about the size of a small pea, two inches within the meatus urinarius. He found the chain of glands in the groins enlarged, as were the post-cervical and epitrochlear, proving more conclusively the specific character of the disease. The next morning after this examination the secondary manifestations had made their appearance and the patient was directed to take pills of blue mass and iron. In the course of a few weeks the discharge from the urethra ceased, the induration of the initial lesion disappeared, and the secondary manifestations gradually faded away.

This case was reported, not on account of any peculiarity in the nature of the disease or in the form of treatment employed, but on account of the position of the initial lesion in the urethra, which caused it to resemble so closely chronic gonorrhœa and gleet.—*Atlanta Med. and Surg. Four.*, Jan. 1, 1886.

Urethral Discharge in Secondary Syphilis.—Francis Cadell reports a case of this rare affection. "In a man, aged thirty-five, there occurred a profuse purulent discharge from the urethra, about two months from the appearance of the chancre, and three months after the last sexual connection. There also existed, at the time of the appearance of the urethral discharge, a large mucous patch on the left tonsil, and a plentiful eruption of papules over the body. The discharge rapidly became profuse and purulent, and lasted for about six weeks. It had a most weakening effect on my patient, who suffered from night-sweats and great debility. There was also an irritable state of the bladder set up after the discharge had lasted three weeks.

The nature of the discharge was similar to that of gonorrhœa, but there was at no time any inflammatory symptom or any redness or swelling of the meatus. There was never any pain in passing urine, nor chordee.

"I have occasionally seen, during the course of secondary syphilis, a slight mucopurulent discharge proceeding from mucous patches within the urethra; but, in my experience, I have never seen before such a profuse discharge of pus as in this case. From the large amount of pus, it is probable that the urethra was affected by an extensive erythema.

"The patient has now entered on the fifth month of the disease. The urethral discharge has ceased, the tonsil is sound, and the eruption rapidly disappearing. The general health is excellent. As is my usual custom, no mercury has been given."—*Br. Med. Four.*, Dec. 5, 1885.

DISEASES OF THE EYE.

A Case of Proptosis, with Ocular Paralysis.—Dr. Jackson reports the following case: M. J., aged nine years, of Katunga, was brought to me by her father, who stated that for the past three months the sight of the left eye had been steadily failing, without any obvious impairment of the general health, which up to this date had remained good. No headache has been complained of, while her appetite is perfect, and she sleeps well at night. On her first visit (July 29th) there was considerable œdema, with purplish discoloration of the upper lid, accompanied by ptosis to such an extent that in order to make an examination of the fundus it was necessary to have the upper lid raised by an assistant. There was marked protrusion of the eyeball, with paralysis more or less complete of the extrinsic ocular muscles. The excursion of the globe upwards was especially restricted, the paralysis of the superior rectus and levator palpebræ being complete. The inferior rectus was the muscle least affected, the ocular movement downwards being very slightly impaired. No diplopia was complained of, nor could a careful examination elicit the existence of double images in any part of the field. Palpation failed to reveal the presence of any solid orbital growth, nothing beyond the œdema already mentioned being noticeable. There

was no general conjunctival inflammation, but the upper ocular portion of that membrane was intensely injected. The pupil was normal in size, while the iris acted freely both to light and accommodation.

Homatropine was used in order to make an examination of the fundus, which was found to be normal, excepting that the physiological cup was much deeper than usual, with marked venous pulsation, paralysis of vessels, and general retinal oedema. The vision of the right eye was normal, $\frac{3}{8}$, and No. 1 Jäger, its refraction being emmetropic; that of the *left* eye was very defective, $\frac{1}{6}$, and No. 16 Jäger, the acuteness of vision, therefore, as compared with the right being $\frac{1}{16}$. An inspection of the teeth showed the central incisors of normal size and shape, while one of the lateral incisors was notched at the apex, and its general conformation so suggestive of a specific taint as to indicate a line of treatment which fully confirmed the suspicion, as the patient recovered almost completely under mercury and potassium iodide.—*Austral. Med. Four.*, Nov. 15, 1885.

Syphilitic Hemorrhagic Iritis in an Infant.—R. Scot-Skirving, M.B., read the following brief notes before the N. S. W. Branch of the Br. Med. Ass.:

On the 20th of July, 1885, the child, aged seven months, was brought to me at the out-patient department of the Prince Alfred Hospital, with the history of inability to digest its nourishment, and consequent gradual falling away. On examination its head arrested my attention, the upper part being apparently large in proportion to the lower part. The anterior fontanelle was full and pulsating. The superficial veins of the scalp and temples markedly engorged, and the temperature being distinctly raised.

There was a staphylus-like rash over various parts of its body. About the anus were some mucous tubercles; this, with the general history of the case, justified a strong presumption of syphilis.

I noticed at this time a peculiar appearance of the right pupil, which the mother stated had only come on a few days previously. It presented a dull-red aspect, which made me suppose—an opinion shared by several of my colleagues—that this was a case of hemorrhage behind the lens. The iris was somewhat altered in color, did not react to light, and was bulged forward, the anterior chamber being apparently almost

obliterated. The tension, so far as could be ascertained in a restless infant, was markedly increased. Both eyes were nystagmic; as far as I recollect, the oscillatory movement being upwards and to the left. At the time I was unable to make a further examination by oblique illumination or ophthalmoscope.

Subsequently, however, examination showed that the left eye became affected similarly to the right; and both, when examined by the ophthalmoscope, showed that the pupils were occluded by an opaque deposit of what I take to be blood-stained lymph. By oblique illumination this was also brought out, and likewise that the anterior surface of the iris was streaked with patches of a like nature, and occasioned small hemorrhages into and on its surface. Such a condition, under another name, is described by Mackenzie of Glasgow, and also is mentioned by Hutchinson in his notes on the iritis of infants.

Under the influence of suitable dietetic and other directions, and the exhibition of small doses of mercury, the condition generally has much improved; the left eye remaining pretty much as it was. The right has improved considerably.—*Australas. Med. Gaz.*, Nov., 1885.

Affections of the Eye Accompanying Mumps.—Dr. Swan M. Burnett writes: "That the eye was in danger from this usually mild and innocent affection I was not aware until the following case fell under my observation:

"CASE I.—Frank W., a colored boy of fifteen, applied to me for treatment on July 25, 1885. He stated that the mumps had been going the rounds of his family, and that he had a slight affection of the *left* gland. On the third day of the disease he got wet, and two days after he noticed that his right eye was affected. On the fourth day of the eye trouble he applied to me. I found the upper lid much swollen, and he was unable to elevate it. On raising it I found the cornea intact, but there was a considerable clear chemosis of the conjunctiva at the outer and inner portions: the pupil was dilated, but not ad maximum, and there was paralysis of accommodation. There was diplopia in the upper, lower, and extreme left fields of fixation, and the upward and downward movements of the eye were visibly restricted. There was a noticeable exophthalmos. $V. = \frac{1}{8}$; $V. \text{ in } L = \frac{1}{4}$. Ophthalmoscopic examination

showed the media to be clear and the outlines of the disk sharp, but there was a marked tortuosity of the retinal veins. He was advised simply to bathe the eye in hot water.

"On the 28th the lid was much less swollen, and he could raise it somewhat. The restricted movement was about the same in upper fixation field, but was improved for below; pupil smaller; chemosis almost gone; some slight exophthalmos. Ophthalmoscopic appearances unchanged. $V = \frac{1}{2}$.

"Aug. 1st. Pupil smaller and accommodation slightly restricted. Diplopia at about 20° up and down from the central point of fixation, and at the most extreme left field; ptosis better. $V = \frac{1}{2}$. Tortuosity of retinal veins not so great. The patient was not seen after this, from which I infer that he went on to a recovery more or less complete."

The author quotes several cases reported by French writers, and thus concludes:

"From a study of the cases reported up to the present time, we find that the principal parts of the eye to suffer from a metastasis of the mumps to that organ are the lid, conjunctiva, and optic nerve, and also in my case the third pair of nerves. The exophthalmos present in my case I think due mainly to the paralysis of the ocular muscles, allowing the cushion of the orbit, by its elasticity, to push the ball forward, though it seems highly probable that there was at the same time a serous infiltration of these tissues, as there was of the conjunctiva and lid. The disease may be unilateral and of varying degrees of intensity. The prognosis of the affection seems to be, in the main, good, the only case terminating in blindness being that of Talon. This, however, suggests the possibility that some of those atrophies of the optic nerve, especially when unilateral, which are accidentally discovered, and the origin of which cannot be traced to any of the hitherto recognized causes, may be due to a metastasis of mumps in childhood.

"As regards pathology, any thing in the way of explanation must, from the paucity of accurately observed data, be merely speculative. Hatry and Talon look upon the eye trouble as consecutive to a cerebral complication. It seems to us, however, that this could not be possible in all the cases reported. It is hoped, however, that the publication of these cases may be the means of calling the attention of both the

physician and ophthalmologist to a new field for their combined observation and study."—*Am. Jour. Med. Sciences*, Jan. 1, 1886.

On the Surgical, Physiological, and Aesthetic Advantages of the Artificial Vitreous Body.—Dr. P. H. Mules says that "evisceration" has been occasionally practised by surgeons as an emergency treatment, but the perfecting thereof and the rules for its safe performance were placed upon a secure basis by Dr. Gräfe, of Halle, and by himself during the year 1884.

The mode of operation of evisceration and introduction of an artificial vitreous body is thus described by the author:

The operation is divided into two parts. The first part, complete in itself, is evisceration. It is conducted as follows:

1. Anæsthetize the patient.
2. Use the hand-spray, and thoroughly cleanse and disinfect the appendages with 1 to 1,000 solution of corrosive sublimate.
3. Transfix and remove the front of the eye with a Gräfe's knife at the corneo-scleral margin, cutting round the conjunctiva first.
4. Empty the contents of the globe in any way that is convenient, taking special care to remove the ciliary body and choroid, leaving a clean white sclera.
5. With a thin india-rubber tube (Inst. 2), used siphonwise, run the sublimate solution into the emptied globe; during the performance of the operation it will help to arrest bleeding.
6. Select the needles, slightly curved, for sewing up, and threaded with gut.

And here, if we please, we may leave the patient, secure in the knowledge that sympathetic disease will not attack the other eye, except under most exceptional circumstances, and that he will possess a movable, though very small, stump on which to adjust an artificial eye; but where a perfect æsthetic result is sought for, and especially in children, for reasons hereafter stated, we advance another stage, and, before sewing up the sclera.

7. Take the glass sphere best suited to the case, slit the sclera vertically, until the sphere will with difficulty enter the cavity. This difficulty only refers to introducing the globe; when it is in, the sclera should unite easily without any tension, and leave no awkward angles; therefore, the largest sphere fulfilling these conditions is the best;

finally, sew up carefully with strong chromicized catgut, taking care to get the scleral edges into apposition. Five stitches are generally sufficient. Lastly, draw conjunctiva over, and unite at right angle to the scleral wound.

8. Spread a thick layer of finely powdered iodoform over the whole conjunctiva, and dress with salicylic-wool in a double layer of Lister's gauze.

9. Keep the patient in bed for three days, and dress with hand-spray, till all risk of septic trouble has passed over.

Should you succeed in keeping the wound aseptic, the reaction is comparatively trivial; if suppuration ensue, the pain and distress may be severe, the orbit becoming infiltrated, and the sclera may slough away. I cannot lay too much stress upon perfect asepticity. The operation should never be performed without full precautions for its attainment; in any case, it is well to warn the patient that he may have pain in and around the orbit for a week.

Union is in most cases rapid. A firm round globe results, retaining all the associated movements *ad maximum*, and capable of carrying an artificial eye which, when carefully centred and moulded, absolutely defies detection. The stump is insensitive to manipulation, so that it seems impossible that irritation can be set up.

In selecting eyes for an artificial vitreous body, it is obvious that shrunken globes must be passed over, as also those in which the conjunctiva is in a sloughy condition, as after burns, or destruction of the eye from gonorrhoeal ophthalmia; but, when the eye is of fair size, and the conjunctiva healthy, however diseased the contents of the globe, and especially in extensive fresh wounds, where primary enucleation is the alternative, the artificial vitreous body can be advantageously used. The first case shown at the Ophthalmological Society in March, 1885, has used an artificial eye for 11 months; the result, so far, is perfect. A second has used it eight months; I have not seen him since, but know he is well, and others of later date.—*Br. Med. Jour.*, Dec. 19, 1885.

Enucleation of the Eyeball, with Obliteration of the Conjunctival Sac.

—Dr. Edwyn Andrew writes that past experience in eye-surgery has never yet caused me to regret removing an eyeball, but, on more than one occasion, to bitterly lament the evil which has resulted from

leaving an injured eye, either from mistaken diagnosis of the case, or from the determined opposition of the patient or others.

As the loss of one eye is a slight evil compared with blindness, and as one good eye, except in a few instances, is sufficient for all practical purposes in life, and far better than two seeing eyes, where one is sufficiently defective to render the other less acute, I have been surprised, in consultations, at the desire of some surgeons to watch and preserve such defective balls, and, still more, where such leniency has been continued to a blind eye, which may become destructive to its fellow.

Delay in sympathetic eye-disease is so disastrous, that it is to be deplored that surgeons are still divided in their views on the matter; for while most surgeons would be agreed as to the necessity of immediate excision in a lacerated wound of the ciliary region, with prolapse of iris, turbid media, injection, pain, almost loss of vision in the one eye, with intolerance and lachrymation in the other eye, and would counsel waiting in a clean incised ciliary wound with fair vision, and the fellow-eye unaffected, still, between these two extremes, medical opinion would vary almost as much as the various conditions.

Some years since, with the endeavor to form a less dangerous stump, I removed the front of the eyeball anterior to the insertion of the recti muscles, and, with a small sponge on a stick, brushed out the entire contents of the eyeball; but was surprised, in some of these cases, at the difficulty of stopping the bleeding of the small central retinal artery; and also disappointed, in others, at the stump on healing becoming painful and necessitating extirpation.

I have lately been planning to preserve the ring of sclerotic to which the recti muscles are attached, cutting away the rest of the eyeball, and in this way forming a better fulcrum for the muscles to act on, and so increasing the mobility of an artificial eye; but the steps to be followed are not yet sufficiently advanced to do more than thus allude to the matter.

Unfortunately, excision, unless aided by an artificial eye, whilst relieving one evil, frequently produces another. In rare instances the conjunctival sac is too sensitive or puckered to admit an artificial eye; but far more common is the inability of the

patient to provide a glass eye ; and the imperfect protection of the socket by a shade, rendering the cavity a receptacle for dirt and filth, and the want of support causing the lids to fall in, and the lashes to rub against the lining, are the means of exciting such inflammation, thickening, and pain in the sac, as to irritate the other eye.

In such cases, for years I have recommended and, when permitted, carried out the plan of removing the entire conjunctival sac, in addition to excision of the ball ; and I thought until recently that I was original in this suggestion, but I find that Mr. Streatfeild proposed this course about twelve years ago in the *Lancet*. On referring to his description, I find that, whilst advising the removal of the sac, he points out the great difficulty of dissecting off the conjunctival membrane, and recommends its destruction by chloride of zinc or the actual cautery ; but, from the few particulars given, he seems rather to have mentioned the operation as a suggestion, than to have carried it out in practice.

In my operation, no cautery or caustic is used, except rarely at a later date ; but the conjunctival sac is dissected off with ease by carrying out the following directions: An incision is made with scissors into the ocular conjunctiva, half an inch from the corneal margin, and this incision is carried around the ball ; the conjunctiva is now freely detached all round, until the edges of the lid-cartilages are reached, when the conjunctiva at the inner angle of the eye, with the caruncle, etc., is most carefully removed, as this is the only part where some difficulty of healing sometimes takes place; the conjunctiva of the outer angle is now similarly dealt with, the edges of the palpebral angles pared, the cartilages entirely dissected away, and a sufficient strip of the free borders of the lids removed, to include all the roots of the lashes, and lastly the ball is excised ; the lids are merely brought into apposition, or the palpebral opening may be lessened by one or two sutures at each end, leaving the centre for drainage.

In my first operations, the cartilages were left, with the idea that a better shape of the closed socket would be the result ; but it was found, on the contrary, that they generally became puckered, retarded the healing of the lids, and caused the operation to be greatly prolonged from the greater diffi-

culty of scraping and dissecting off the mucous membrane from their under-surface.

The lachrymal gland gives no trouble ; as might have been anticipated ; the conjunctiva being destroyed, its function is not required, and the gland, not being stimulated unless from a mental emotion, probably wastes away.

In a few cases, a minute fistula has remained at the inner angle of the palpebral aperture, owing to want of care in removing every portion of conjunctiva at this spot ; when this has occurred, the application of a minute actual cautery has quickly obliterated the fistula.

The patients have been most pleased with the results, and express their satisfaction at the great comfort obtained, compared with a painful ball or dirty socket, the advantage of following any occupation, and doing away with all covering, without any risk of taking cold.—*Br. Med. Jour.*, Dec. 19, 1885.

Corrosive Sublimate in the Treatment of Conjunctivitis.—Below, in the *Médecine Russe*, 26, '85, analyzes sixty-five cases of conjunctivitis and concludes :

1. Under the influence of an atomized solution of sublimate (1-2,000), the secretion rapidly diminishes and disappears, and also the hyperæmia is lessened more slowly in the chronic forms, but more rapidly than when treated with silver.

2. Phlyctenules disappear as rapidly as under calomel.

3. In trachoma, complicated by acute or chronic inflammation, there is observed a diminution or even a disappearance of the hyperæmia, and a diminution in the number of granulations.

4. In every case of acute conjunctivitis, where silver is contraindicated, he uses, in the place of cold and leeches, weak sublimate solutions.

5. In chronic conjunctivitis, and in the second stage of a blennorrhœa, the mixed treatment of nitrate of silver and corrosive sublimate give the best results.

6. Spray of a weak sublimate solution give good results as a prophylactic against the blennorrhagic conjunctivitis of the newborn.

The spray is employed 2-8 times a day, and the atomizer is held near the eye while the two lids are successively everted.—*L'Union méd.*, Dec. 12, 1885.

The Dangers of Cocaine.—Dr. Chas. B. Taylor writes to the *Medical Press and*

Circular, Dec. 9, '85 : As I was unable to attend the recent meeting of the Ophthalmological Society, whose proceedings are recorded in your columns, will you kindly allow me to add my testimony to Mr. Nettleship's interesting observations on the dangers of cocaine. I have myself seen two cases similar to those he describes and a series are recorded in a recent number of the *Therapeutic Gazette*, an American journal with which you are doubtless acquainted. All solutions of cocaine are liable to deteriorate by the growth of microscopic organisms, and unless this tendency is checked, there is great danger that the wound with which they come in contact will become infected. I should not think it was safe to use a simple watery solution that was more than a week old, but such dilutions may be protected indefinitely by the addition of carbolic acid, boracic acid, salicylic acid, and bichloride of mercury. Carbolic acid, unless in infinitesimal proportion, is too irritating to apply to the eye. There is evidence that boracic acid alone is not quite so effectual as other preventatives, and salicylic acid, though a first-rate preservative, is, unless in extremely feeble solution, also apt to cause surface irritation. I have, therefore, for some time past, used as a medium for the solution of cocaine, a saturated solution of boracic acid containing one five-thousandth part of bichloride of mercury, and although I have used this preparation in a vast number of cases, I have never since its adoption seen any ill results. The immense value of the bichloride as an antiseptic in cases of cataract-extraction seems amply demonstrated by some statistics recently published by Alfred Graefe. Graefe divides his cases into four categories : in the first he bathed the eye to be operated on, before and during operation, with a solution of carbolic acid two per cent. ; of these he lost five per cent. In the second he used carbolic spray ; of these he lost six per cent. In the third category he used saturated solution of boracic acid throughout ; of these he lost four per cent. In the fourth he used a solution of corrosive sublimate 1 in 5,000 ; of these he lost only one per cent. Graefe, therefore concludes that the corrosive-sublimate solution is by far the best antiseptic. Latterly, however, he has reduced the strength to 1 in 20,000.

Toxic Amblyopia from the Prolonged Internal Use of Iodoform and

Creasote—Cure.—Dr. E. Hutchinson narrates the following case :

In February, 1885, while spending the winter at Nassau, N. P., I was consulted by Edward G., a New York merchant, for loss of sight. He stated that during the holidays he had noticed the first sign of failing vision, and that he rapidly became worse, and finally was unable to read, or even recognize his friends. Mr. G. was a tall, well-formed gentleman, married, of good habits, and was temperate in his food and drink. He did not smoke at all, and drank only wine at his meals. He had been an invalid for a long time, and was passing the season at this beautiful tropical island for his health. The previous winter he had resided at Algiers, and the winter before in the south of France. He had a cough, and had lost flesh.

The eyes looked well, he had no pain, the field of vision was normal, and he had good color-perception. The visual power was reduced to $\frac{1}{100}$ in each eye. With the ophthalmoscope, there were no abnormal changes to be observed in the fundus, except that the optic discs looked grayish white, as is seen in cases of tobacco amaurosis. He could give no reason at first for his infirmity, and, as I observed a hypermetropia of $\frac{1}{8}$, I thought that glasses might relieve him. After he had tried them, however, he was no better than before. I questioned him carefully, and after some days he told me that, while in Paris, in June, 1883, he had consulted the celebrated physician, Bouchard, for his cough, and that he had prescribed creasote pills. In July he took creasote with benzoic acid. This treatment was continued until January, 1884, when he was ordered iodoform in addition. At this time he was at Algiers. In June he returned to Paris, and another prescription was given him of creasote, 4 grammes ; iodoform, 6 grammes ; mucilage, q. s. Make 80 pills. To take 8 pills daily. This gave him 6 grains of creasote and 9 grains of iodoform daily. The 1st of August the prescription was slightly changed the creasote and iodoform being in the same quantity, but a small amount of benzoate of sodium was added. He had continued the medicine faithfully until the time I saw him.

Being fully aware of the poisonous effects of alcohol, tobacco, lead, quinine, mercury, bisulphide of carbon, morphine, and the aniline colors upon the retina, I at once inferred that the creasote and iodo-

form in such considerable and prolonged doses must have occasioned his blindness. At my suggestion, he stopped taking the pills at once, and I began the use of strychnine hypodermically, $\frac{1}{16}$ -grain daily. In a few days he could tell the effect of the treatment, and he improved so rapidly that by April 22d his right eye had $V = \frac{2}{3}$, and the left $V = \frac{2}{3}$. He could then read without glasses, but with ease when he had on convex $\frac{1}{8}$. About this time his cough became much worse, and he lost his appetite. He was constantly speaking of the good results he had experienced from the creasote, and I permitted him to have some more pills prepared without the iodoform. He took them as before, with a decidedly good effect, and no loss of sight, for on the 26th of April the right eye had $V = \frac{2}{3}$, and the left eye $V = \frac{2}{3}$, with a manifest hyperopia of $\frac{1}{8}$ corrected by glasses.—*N. Y. Med. Jour.*, Jan. 2, 1886.

OBSTETRICS AND DISEASES OF WOMEN.

A New Infallible Sign of Pregnancy.—Compes, in *Berlin. klin. Woch.*, '85, No. 38, says that Reini has recently written calling attention anew to Hegar's very sure sign of pregnancy, namely, the very great pliability of the lower segment of the uterus, which stands out in bold contrast to the density and rigidity of the cervix. From his position in the Freiburg Clinic and by means of a very large number of cases of pregnancy in the first month, he can confirm this statement. The author wishes to draw the attention of the profession to these facts, which have hitherto had but little consideration.

The index finger is introduced into the rectum, after which the thumb, being introduced into the vagina, rests upon the os, then moving it backwards to reach the sac of the internal sphincter ani. Provided this does not succeed, one half pint of warm water can be injected into the rectum. Then with the free hand he presses inward just over the symphysis towards the rectum, so as to engage between the fingers the lower segment of the uterus in the neighborhood of the cervix; in this way he examines the middle and the sides and then all sections of the body of the uterus. This compressibility is found in all possible stages of pregnancy. Under

other circumstances, pathological conditions, and peculiar phases of gestation it is never observed. They came to this conclusion, because the lower segment of the uterus is the thinnest part of the entire body of the uterus, because it also during pregnancy becomes relaxed and succulent, and because the contents, on account of the greater elasticity likewise of the wall of the upper sections of the uterus, can become displaced by the light weight in it.

This proof is positive; where it is present pregnancy is in the highest degree probable.—*Central. für Gynäkol.*, Dec. 19, 1885.

The Passage of Microbes from the Mother to the Fœtus.—Koubassoff, in a note presented by Pasteur to the Academy of Sciences of Paris, is credited with the following remarks:

At present we have made five experiments with pregnant hares, inoculated with charbon; we have collected seventeen fœtuses, whose organs, as the liver, spleen, heart, kidneys, brain, etc., have been examined in this manner: we have found the bacilli of charbon in all the organs and in all the fœtuses.

The animals are taken in different periods of gestation; the virus of charbon and the vaccine of Pasteur have been introduced under the skin of the abdomen. The autopsy is made in the following manner:

After having burned the membranes with a heated wire, they are pierced with a sterilized pipette, with which a few drops of the liquor amnii are taken.

Then the fœtuses, still in their membranes, are taken out and plunged an instant into boiling water. The organs are taken from their cavities and immediately placed in alcohol.

When the organs are hardened, sections are made and stained by the simple or double method according to Gram. On examination the bacteria are often found outside the vessels and in groups of three to nine small rods, one beside the other, forming a line—that is to say, they have already begun to multiply.

Their distribution in different organs is not uniform.

The bacteria are found also in the placenta, amniotic fluid, and other fluids of the fœtus.—*Compt. Rend. des Sciences*, Feb. 9, 1885.

After some more recent experiments Rubassoff, in the *Wratsch*, 1885, Nos. 31, 32, 36, mentions the investigations of

Chamberlain, which prove the transmission of the microbes of chicken-cholera to the fœtus. He experimented on pigs, and found that in malignant œdema, rouget (a disease of pigs), and tuberculosis, the microbes have the power to pass into the placenta. He therefore states that a direct communication exists between the vessels of the mother and the fœtus. Likewise in Siberian plague, rouget, and tuberculosis, the bacilli pass into the milk, and are found here until the secretion of milk stops or the animal dies. The fœtus, however, would, in this case, not be infected by the milk when the mother dies. The animals affected with tuberculosis or rouget will not become pregnant. The chief protection against infection consists, according to the author, in an unbroken condition of the skin and mucous membranes.—*Central. für Gynäk.*, Dec. 5, 1885.

The Effect of Labor on the Temperature of Mother and Child.—M. Bonnal concludes that the labor of childbirth does not necessarily raise the temperature of the parturient.

2. The temperature noted after parturition is not in direct relation either to the duration of the labor, or to the intensity of the pains, nor the age of the woman, nor the time elapsed since the rupture of the membranes.

3. Temperature is not more elevated in primipara or in those bearing twins, nor is it more in presentations of the breech and of the face, when there is no disproportion between the size of the child and the passages.

4. Compared to that of the mother, the anal temperature of the child at the moment of its birth is exceptionally lower than it, rarely equal, and almost always .2° to .7° higher.—*Acad. des Sciences*, Oct. 26, 1885.

Extrauterine Pregnancy Changed to Intrauterine, by Means of Faradization.—Dr. H. J. Garrigues reports a case which he diagnosed right interstitial pregnancy and treated in the following way:

The pain was provisionally quieted with morphine, while he made preparations for the use of electricity. When he saw her again at 8 P.M., there was some bloody discharge from the uterus, but the cervix was unchanged. He used a Smith & Shaw's closed-cell pocket battery, applying the negative pole, consisting of a metal ball covered with muslin, against the tumor in the vagina, and the positive pole, formed

by a large plate of carbon covered with canton flannel, on the abdomen just above and in front of the tumor. He used the lowest power of the primary current of both cells for ten minutes. The pain was quite supportable. She did not sleep during the night on account of excitement, but had not much pain.

The next morning, June 23d, he found all uterine soufflé had disappeared. The uterus was much smaller and softer, the change having taken place only in the right side. The cervix was unchanged. Nothing had been discharged from the vagina except a few drops of pure blood, no water, no shreds, no lumps. The breasts had become much flatter. Pulse and temperature were normal. Faradization as the evening before. During the day she had some vomiting, headache, and feeling of malaise.

The next morning, June 24th, the headache had disappeared, and she was free from pain, and was not even tender on pressure, except on the place corresponding to the fœtal sac.

On October 31st, at one A.M., she was seized with labor pains, sent for a neighboring midwife, and an hour later, by a normal delivery, gave birth to a well-developed female child measuring sixteen and one half inches in length, and looking as if it weighed between five and six pounds. It lived five hours, and might probably have continued to do so if better taken care of. The parents had the old superstition that "an eight months' child could not live." When seen eight hours after its birth, it had not even been washed. The after-birth was small, but otherwise of normal appearance.—*Medical News*, Dec. 12, 1885.

Papillomatous Cysts.—Martin relates an exquisite instance of a papillomatous cyst which developed entirely under the peritoneum. The patient was thirty years of age, married eight years and sterile. For two years she had noticed a swelling to the left of the uterus, but the operation was not performed because of the deep seat of the tumor in the broad ligament. The swelling quickly extended above the navel and compelled an attempt at its removal. After loosening up the adhesions with the omentum and intestines, the tumor was lifted up with the uterus and surrounded with an elastic ligature. Separation from the uterus appearing dangerous, the uterus was taken away with it.

The right ovary was also degenerated, and there protruded from its surface very many polypous papillomata. The tumor of the left side had within it warty masses. The wall had numerous daughter cysts, which also contained papillomatous masses. The peritoneum appeared at the time still intact. Recovery took place at once—*Central für Gynakol.*, Dec. 12, 1885.

Mr. J. G. Smith, of Bristol, summarizes such clinical features as, being in harmony with pathological facts, may fairly be regarded as worthy of trust in leading to a diagnosis of papillomatous cysts.

1. In their growth the tumors are markedly asymmetrical. Springing as they do from the broad ligament, and having no pedicle to permit their escape from the pelvis, they are fixed down on one side and cannot, when large, rise to the position of least pressure in the middle of the abdomen. Minor cysts bulge out where they can find room in the pelvis or on the side not occupied by the main cyst; but their aggregate bulk and arrangement is not such as to produce a balancing symmetry. Cases of ovarian disease are rarely so persistently one-sided and so irregular in shape as these, and they are not so deeply nor so so firmly attached in the pelvis. With the rare fibro-cystic disease of the uterus, so far as the few recorded cases show, cystic disease of the broad ligaments is less likely to be confounded.

2. Another peculiarity would seem to be the multiplicity of cystic growths. It is not merely a multilocular cyst, one large cyst divided by septa into several; it is a development of several separate cysts, each sessile on a common base. This peculiarity is more marked in my cases than in those shortly related by Mr. Doran. In each was found one major cyst, and in each this cyst, from its papillomatous contents, appeared to fluctuate less freely than its companions. The others were crowded into the pelvis, occupying Douglas' pouch, and into the side of the abdomen unoccupied by the large cyst. Their walls were thin, and fluctuation was usually plainly to be elicited.

3. A third peculiarity of papillomatous disease of the broad ligaments is its immobility. From the very beginning and all through its progress it is absolutely immovable, in its deeper parts at least, to such force as can safely be applied. In the pelvis through the vagina this sensation of re-

sistance was peculiarly unyielding. It is doubly fixed by the broad ligament in which it mainly lies, and by the minor cysts packed in the pelvis which spring from it.

4. A fourth point is enlargement and elevation of the uterus. In my third case the uterus was drawn up out of reach, in the others it was elevated; in all it was much enlarged. That the uterus should be enlarged, is readily conceivable from its close physical and vascular connection with the very vascular growth. That it should be elevated, is a necessary consequence of the direction of the tumor's growth and of the attachment of the uterus to it. This enlargement was in excess of what is at all common in ovarian cystoma, even when adherent to the uterus. The situation of the uterus in these cases was midway between the cystic growths bulging over it, and placing it at the bottom of a sulcus visible through the abdominal walls; but it is conceivable that it might be completely overlapped in front and pushed backwards, or *vice versa*.

5. As a corollary from preceding propositions, we might infer physical interference with the processes of defæcation and micturition. The growth, being fixed in the pelvis and there undergoing enlargement, of necessity presses upon the hollow viscera. In the third case frequency of micturition was the most prominent symptom; in the other two it was marked enough to require special comment in my notes. In the third case, also, as might be expected, the difficulties in defæcation were most urgent. A curious feature in her case was that she could defæcate only when standing, probably because the sitting posture forced the growth downwards into the pelvis.

6. It would seem that papillomatous cysts everywhere are peculiarly liable to undergo rupture. In the second case there was an extraordinary and perhaps unique history of rupture on at least twelve occasions. In the first and third acute symptoms existed on several occasions which were compatible with rupture. Mr. Doran comments on this tendency of papillomatous cysts to burst, and lays particular stress on the clinical importance of this fact in reference to the likely result of general infection of the peritoneum. In my cases I think that any rupture which took place was not of the large papilloma-bearing cysts, but of the small thin-walled cysts not containing papilloma.

Several puckered cicatrices in the sulci between these small cysts, which were observed after removal of the growths in two of the cases, lend probability to this view. Mere leakage through a small opening without the formation of a large rent, as it is pathologically the most common mode of escape of the fluid contents, would not produce very acute clinical signs. If the rupture is not of a large cyst, we should not expect much diminution in the size of the abdomen, nor marked relaxation in the tension of its walls.—*Annals of Surg.*, Dec., 1885.

DISEASES OF THE MOUTH AND THROAT.

Caffein in Laryngeal Phthisis.—

Dr. Gougenheim, because of the cost of cocaine, sought means to obtain the same effects by the employment of a cheaper medicine. He used caffein in ten cases of epiglottitis and arytenoiditis, one case of epithelium of the pharynx and larynx, one case of violent dyspnoea in a tuberculous patient, attributed by some to a paralysis of the dilators, by others to a permanent spasm of the glottis by compression of the recurrent nerves.

Caffein failed completely in one case of oedema of the larynx where cocaine ought to have succeeded; in the case of cancer it was useless, while cocaine succeeded; in the case of paralysis or spasm of the glottis it succeeded. The relief of dysphagia was sometimes very prompt, but commonly many applications were necessary.

Since then he has used it frequently with continued success; in bad cases he employs at first cocaine, but continues the anæsthetic action by means of caffein made by the nurses.

Cocaine has as drawbacks its effect in destroying the appetite and the liability of forming a disagreeable habit. Caffein, a more anodyne medicine has not these drawbacks, and if it is not destined to replace cocaine, will at least be of use to complete its action, and it will be possible to confide it with more security to patients and nurses.

The caffein to be thus used should be dissolved with an equal part of the benzoate or salicylate of soda in as much water as is needed.—*Ann. des Mal. de l'Oreille, du Larynx, etc.*, Nov., 1885.

Angioma Beneath the Tongue.—

Dr. W. H. Haynes reports the following case. Some time ago Mrs. F. was delivered of a well-developed female child, which was noticed to have a nævus on the lower lip at about the middle third, involving the mucous membrane and skin beyond the vermilion border to an equal extent of about three eighths of an inch. There was nothing noticeable within the mouth at this time. Three months later the child was brought to me on account of there having appeared beneath the tongue, on each side of the frænum, a smooth, glossy, globular swelling looking exactly like the illustrations shown in text-books of typical ranula, except that in this instance there were two tumors. The one on the left side was much the larger, and both together were of such a size as to elevate the tongue and impede nursing and respiration, causing the latter to be distinctly nasal. They were bluish in color, soft, and fluctuating. The nævus had also increased in size, had become more prominent, of a bright-red color, and frequently bled freely. Puncturing the tumor on the left side gave exit to a quantity of blue venous blood. A ligature was passed through the tumor after the manner of introducing a seton and tied tightly. This procedure was followed by a venous hemorrhage (which after a while ceased spontaneously) and subsidence of the swelling. In a few days the tissue included by the ligature sloughed, became disintegrated, freeing the ligature, and allowing the exit of a dark-brown, spongy mass. This gradually melted away and union of the divided tissues took place, so that all that remained of the tumor was a small stump of connective tissue covered by mucous membrane. The same procedure was repeated on the right side. This time, however, the hemorrhage consisted of bright-red arterial blood, which ceased spontaneously as before. In all other respects the process of repair was the same as after the first operation. No further difficulty has been experienced in performing any of the functions of the mouth. The nævus, though growing *pari passu* with the normal development of the parts, oozes bright-red blood at times, which is checked by the use of styptics. Areas of cicatricial tissue have appeared in these places, so that we are in hopes that in time a cure of this deformity may take place by this process.

The pathology of this form of tumor con-

sists in an over-development and dilatation of the capillary blood-vessels of a part, covered by the different tissues, according to the depth and place of location; in the present instance being covered by the connective tissue and mucous membrane lining the cavity of the mouth. They are always congenital. Their cause is unknown. Their occurrence upon the surface of the body is very common. In the different cavities of the body their development is rare; particularly is this the case with the cavity of the mouth, and it is still rarer for the deformity to be double.

There are two other forms of tumor—which are apt to be met with more frequently in this locality at this early time of life—with which these tumors may be confounded, viz., true ranula and cysts (false ranula so called).

Dermoid cysts may possibly be located here also, but they have distinguishing features of their own for purposes of diagnosis. Labbe mentions having met with sanguineous cysts in this region, but, from his description, I believe them to have been analogous to those described at the head of this paper, of the same pathology, and not of that he mentions.

The three first-mentioned forms of tumor resemble each other so closely in appearance and feel during their development, that our only certain means of diagnosis is by exploratory puncture, which can not possibly do harm, and may also bring about immediate cure. After such a puncture, if the tumor be a true ranula (simple closure of the mouth of the duct), the sac collapses with the exit of the clear fluid, and a probe can be passed along the cavity, remaining for a varying distance of about an inch till it reaches the gland structure. In the case of a false ranula (simple cystic tumors of the connective tissue), after the puncture the cyst partially collapses with the exit of the clear fluid, and the probe enters only a small limited cavity, which, being laid open, reveals the wall or walls of other similar cysts. If, after the puncture, blood exudes, we know we have a tumor made up of capillary blood-vessels.

I have mentioned the contents of these tumors as being a clear fluid; but, to continue their natural history: "In older children the contents of these cystic tumors may be of dense consistence, like soft putty, which does not exude, but will have to be scraped out and the cyst-wall enucleated.

This condition is due to the absorption of the watery part of the elements and consequent condensation of the organic material forming in true ranula a calculus, and in false ranula an encysted tumor.—*N. Y. Med. Jour.*, Dec. 19, 1885.

Multiple Fatty Tumors.—Mr. Gilbert Barling reports two cases of unusual disease of the tongue. The patient, a man aged 75, first noticed some enlargement of the edges of his tongue about twenty years before he was seen at the hospital; this continued and increased, but without causing him any further inconvenience than occasionally getting somewhat in the way during mastication, and producing some indistinctness of speech. The existence of the tumors was discovered accidentally by Mr. Holdsworth, under whose care the patient was as a "medical casualty." The tumors, four in number, implicated the anterior part of the organ, two, each about five inches in diameter, being on the right margin, and two on the left margin; of the latter, one was more than an inch in diameter and the remaining one of the size of a small nut. Each of the tumors was elastic, but not fluctuating, and the yellow fat showed through the mucous membrane, which was smooth and thinned over it. The centre of the tongue was not affected, and presented a healthy appearance. The patient having suffered so little, was not at all inclined to have the tumors interfered with; and, seeing that there was no ulceration over the growths, and that he was 75 years old, and feeble, an operation was not urged.

BOOK NOTICES.

The Principles and Practice of Medicine.—By the late Charles Hilton Fagge, M.D., F.R.C.P., including a section on Cutaneous Diseases by P. H. Pye-Smith, M.D.; chapters on Cardiac Diseases by Samuel-Wilkes, M.D., and complete indexes by R. E. Carrington, M.D. Vol. I., pp. 1040. P. Blakiston, Son, & Co., Philadelphia.

During the last twelve years of his valuable life, Dr. Fagge was constantly occupied in preparing a Treatise on the Practice of Medicine, in which he collected the results of his many investigations and large experience, basing it to a great extent on laborious researches into the pathological and clinical records of Guy's Hospital during the twenty years in which he held office there as Medical Registrar, as pathologist, and as physician. Familiar beyond most, if not all, of his contemporaries with modern medical literature, a diligent student of French and German periodicals, he, with his remarkable memory

and methodical habits, was able to bring to his work in the wards and in the dead-house almost unequalled opportunities of extensive experience. The result was what will probably be admitted, a fuller, more original, and more elaborate text-book on medicine than any that has appeared. It is only to be regretted that his untimely death, just as this life-work was completed, will not enable him to see the realization of his plans in the published book. His manuscript has, however, been prepared for the press by several of his confrères.

The first volume, now before us, treats of General Morbid Processes, Specific Diseases, Diseases of the Nervous System, Neuroses, and Diseases of the Respiratory System.

His chapter on Syphilis, of which he writes as one of the general morbid processes, is of great excellence. He throws some doubt on the commonly accepted theory that the disease developed in Italy all of a sudden in 1494, but suggests rather that special attention was drawn to it then by the occurrence of an unusually violent epidemic.

The breadth and liberality of the author's mind is shown when he says: "One may almost say that the physician ought, as far as possible, to thrust out of his sight the idea that the disease carries with it the stigma of impurity derived from illicit intercourse. There are many ways in which a person may fall a victim to syphilis without any breach of morality." The natural history of the disease is very well portrayed, and the pages devoted to treatment, while they contain nothing new, are very good. The author is a very firm believer in the great utility of mercury, when carefully handled, in all stages of syphilis.

The third chapter, on specific diseases, including the exanthemata, malarial fevers, erysipelas, cholera, etc., occupies nearly two hundred pages and is very exhaustive, and lacks only the advances in bacteriology which have been made since the book was written. In all diseases where micro-organisms were then known to play a prominent part, as in anthrax, their study receives a full share of attention. Further along, under the subject of phthisis, the bacillus theory, just then advanced, is pretty thoroughly discussed.

The succeeding chapters on "Nervous and Respiratory Diseases," are of equal or greater worth than the preceding. In short, if the treatise is completed by a second volume equal to the first, it will be one of the most complete and valuable books on medicine written.

The Physician's Visiting List for 1886.—P. Blakiston, Son, & Co., Philadelphia.

This useful publication comes to us in the thirty-fifth year of its publication, retaining all its former good qualities, and with the addition of some new ones. It has been so long before the profession, and is so widely and favorably known, that to merely call attention to its reappearance is all that is necessary.

Official Formulæ of American Hospitals.—Collected and arranged by C. F. Taylor, M.D. *The Medical World*, Philadelphia, pp. 238; price, \$1.00.

According to the author: "The benefit intended is to place before the profession the remedies and combinations of remedies found most useful in our hospitals." So far, so good; but how he can keep the book away from formula-following physicians, for whom the author says he "has no admiration," and

for whom it was not written, is very difficult to conceive. To fulfil the first-mentioned purpose the book is as complete as possible.

BUSINESS NOTES.

Bromides.—The Peacock Chemical Co., St. Louis, apparently have a corner on bromides, judging from the great variety of their preparations. The attention of epileptics and of others who are too often reminded that they have a nervous system, is invited.

The Jenner "Vaccine Farm," located in Chambersburg, Franklin Co., Pa., is in full working order during the entire year. "Virus" of the most reliable character can be furnished at the shortest notice.

The Electro-Medical Battery Co., of Kalamazoo, Mich., makes a very handy battery for the general practitioner; send for circular.

Malto-Pepsine.—Tilden & Co., New Lebanon, N. Y., publish the formula for this evidently valuable compound.

They claim that it is superior to all other remedies for dyspepsia and kindred diseases, and are doing a large business in supplying it to the profession throughout the country.

They have an office in New York City.

Beef Peptonoids.—The enterprising firm of Reed & Carnrick have brought forward many preparations which have been of great use in the treatment of disease. They have recently introduced two new preparations which are claimed to surpass any of their previous efforts: one, the emulsion of cod-liver oil with milk and pepsin, we have already spoken of; the second is the new form of beef peptonoids—a combination of concentrated beef, milk, and the gluten of wheat. When taken with milk it is a very pleasant form of food, and it certainly does help the digestion of the milk. The writer has given this combination with the very best results to patients who previously could not take milk on account of the indigestion which it produced. We can heartily recommend this preparation.—*Canadian Practitioner*.

Syrup of Hypophosphites.—

J. A. McArthur, M.D.,

Dear Sir:—For three years I have used

your Syrup of the Hypophosphites. I now use none other, as I have found by experience that it is a very pure, reliable, and effective preparation, and the only Hypophosphites in which I have any confidence. I am familiar with your process of manufacture and know it to be trustworthy. I candidly and conscientiously recommend the preparation to the profession.

F. D. STEPHENS,
City Physician.

Lynn, Mass., Jan. 1886.

Fitch's Pocket Prescription Scales.

Dr. C. H. Fitch,

Dear Sir:—We have seen your Pocket Physicians' Scales, and have no hesitation in saying that it is superior in every respect to any thing of the kind we have ever seen. The demand for these Scales will be very large. It is an article that every physician outside of cities will require, and every family would find it useful and of great convenience. Very respectfully,

(Signed) PURCELL, LADD, & Co.,
Richmond, Va.

Lacto-Peptide.—

Philadelphia, Pa., June 20, 1878.

I have used Lacto-Peptide with very good effect in a number of cases of dyspepsia.

JAS. AITKEN MEIGS, M.D.,
*Prof. of the Institutes of Med. and Med. Juris.,
Jeff. Med. School; Phys. to Penn. Hosp.*

"Pallas" Syringe—Vaginal and Rectal.—This is a novelty which appears to be well deserving of consideration. Jensen & Co., Philadelphia, will send an illustrated circular.

Rio Chemical Co.—This firm manufactures Celerina, Aletris Cordial, the Acid Mannate, and Pinus Canadensis, all of which preparations are highly spoken of by physicians in St. Louis and elsewhere.

Thermometers.—The Barry Clinical Thermometer has won very cordial endorsement from good authorities.

Vin Mariana.—We are in accord with Drs. Fauvel, Gazeau, Rabuteau, and Cintrat, in declaring, after many clinical observations, the "Mariana Wine of Coca," "Elixir" (or "Cordial"), to be specially efficacious in granulous pharyngitis, tonsillary angina, albuminuria, and diabetes; and that their stimulating properties on the nervous cerebro-spinal system cannot be

ignored. Dr. Charles Fauvel says: "Coca is the tensor, *par excellence*, of the vocal cords."—D. P. Collin—*Union medicale*.

Operating Chair for Physicians.—

The manufacturer of the Wilson Chair, Mr. M. Klein, Chicago, desires physicians to send for his illustrated circular.

Artificial Limbs.—The opinion of Prof. Sayre, of N. Y. City, on the practical and relative value of artificial limbs has deservedly very great weight with the profession.

A. A. Marks publishes the strongest kind of testimonial from Prof. Sayre, regarding the Marks' patent, lauding its superiority over other artificial limbs. *Pamphlet free.*

The Pine Needle Extract Co., of Sharon Springs, N. Y., ask the favorable consideration of practitioners for their preparations. Their interesting pamphlet deserves examination.

Fellows' Hypophosphites—Uses of.—This syrup is claimed to be especially beneficial in the anæmia of lactation, rickets, Pott's disease, albuminuria, and fractures.

Mellin's Food.—Dr. Eustice Smith, of London, physician to the Children's Hospital, and author of "Wasting Diseases of Infants and Children," says: "Mellin's food is by far the best of any with which I am acquainted. It seems to agree equally well with children whether they are healthy or diseased."—*Lond. Med. News.*

Cod-Liver Oil Tonic.—When you prescribe cod-liver oil, better order Scott's Emulsion, for then you will give your patient not only a pure oil, but a combination holding the hypophosphites of lime and soda in intimate mixture.

Colden's Liquid Beef Tonic.—Dr. Wm. Alex. Greene, Macon, Ga., writes: "I cheerfully state that I have tested the virtues and efficiency of Colden's Liquid Beef Tonic in my private practice, in cases of general *debility, weakness, depression, dyspepsia*, loss of appetite, and nervous afflictions, when medicine had proved more than useless. I have found it the best remedy I ever used in *chronic alcoholism*, when the stomach is always irritable, and food required to nourish and invigorate the drooping strength and nervous depression, also appeasing the thirst for more alcohol."

THE MEDICAL ANALECTIC

A
MONTHLY EPITOME OF PROGRESS IN ALL DIVISIONS OF
MEDICO-CHIRURGICAL PRACTICE

EDITED BY
R. W. AMIDON, M.D.

VOL. III., No. 2.

February, 1886.

WHOLE No. 26.

LEADING ARTICLES.

CEREBRAL SURGERY.

Roberts on the Field and Limitation of the Operative Surgery of the Human Brain.¹—I. The complexus of symptoms called "compression of the brain" is due, not so much to displacing pressure exerted on the brain-substance, as it is to some form or degree of intracranial inflammation.

There are no definite symptoms by which we can distinguish accurately between laceration of the brain, contusion of the brain, and the so-called compression of the brain. It would be well if traumatic "compression of the brain" were always translated "inflammation of the brain," and the profession taught to believe it due to irritation of the brain periphery from the traumatic cause.

II. The conversion of a closed (simple) fracture of the cranium into an open (compound) fracture by incision of the scalp is, with the improved methods of treating wounds, attended with very little increased risk to life.

Uncertainty as to the character of a cranial lesion is more dangerous to health and life than the conversion of a closed into an open fracture of the skull, because observation has taught the profession that open cranial fractures do not resemble in fatality similar open fractures of long bones. If I but learn the character of the skull injury, I am acquainted with surgical expedients that render restoration to health more probable than the complication due to the incision renders it improbable.

Antiseptic methods have done away with much of the danger of open-bone wounds, as is shown by the frequent advocacy of resection for ununited and for malunited

fractures, and of osteotomy and similar operations for conditions not urgently demanding surgical interference. No surgeon would hesitate to convert a closed recent fracture of the thigh or leg into an open one if it were otherwise impossible to replace fragments which were threatening life. Hence I strongly advocate exploratory incision of the scalp in obscure injuries of the skull.

III. The removal of portions of the cranium by the trephine or other cutting instruments is, if properly done, attended with but little more risk to life than amputation of a finger through the metacarpal bone.

Much of the mortality attributed to trephining belongs to the serious brain-lesions that have accompanied the fractures for which trephining has been done, and to the absence of proper surgical antiseptics. Many patients have been trephined and have undoubtedly died; but the opponents of trephining must show that cause of death lay in the operation itself. In deaths occurring from lesions for which trephining is the admitted treatment, they must likewise show that the operation is done early enough to remove the causative factor of death before they can assert that the operation was unavailing.

Nancrede,² from a careful investigation, gives a mortality of 10.69 per cent. as being a probably fair estimate of the risk of the operation *per se*, and a death-rate of 15.29 per cent. as an expression of the probable risk in trephining a simple depressed fracture. This author further says that his own experience has taught him that trephining is not a dangerous operation, and that more patients die from complications, that might have been prevented by timely operation, than from the removal of a disk of healthy bone.

¹ Phila. : P. Blakiston, Son, & Co., pp. 80.

² "International Encyclopædia of Surgery," vol. v., pp. 94, 95.

Dr. R. W. Amidon, of New York, has collected 115 cases of trephining and kindred operations occurring since 1879. These operations were done for various causes, and were unselected by Dr. Amidon; nor did he confine himself to cases treated antiseptically.¹ Of these 115 unselected cases, 29 died; but of these, 25 presented, at the time of operation, symptoms endangering life, leaving therefore but 4 cases in which the fatal issue could be attributed to the operation. This gives a mortality of a little over three per cent. to the operation. He announces his reasons for considering the 25 deaths as not attributable to operation in the following words: "In six cases, symptoms of abscess of the brain declared themselves before the operation was performed. In five a meningitis existed at the time of operation. In four cases shock caused death. In two died of hemorrhage from a branch of the middle meningeal artery (not wounded in the operation); one died of hemorrhage from the middle cerebral artery, severed by a stab wound of the head; one died of hemorrhage from a lacerated longitudinal sinus; one of galloping consumption, which was hereditary; one of pneumonia; one of extensive laceration of the brain; one of opium poisoning; and two I accept, on authority of the physician reporting them, as not dying from the effects of the operation."

Yeo^{*} trephined twenty-six monkeys under antiseptic precautions, and had only one death attributable to intracranial inflammation, though six other deaths from exposure to cold weather, chloroform poisoning, or hemorrhage occurred among his cases. In some of the animals portions of the brain were excised. Of other monkeys trephined without antiseptic precautions all died.

For removing large or irregular areas of bone, the flat burr of the surgical engine is certainly much more accurate and desirable.

I have compared trephining with amputation through the metacarpal bone, because in both operations there is exposure of cancellated bone structure. Trephining in itself is, I am convinced, little if any more hazardous. I believe that one of us trephined to-day might, if it were necessary,

go home without incurring any great risk to life; though I would not advise such a procedure. Amputation of the finger may be followed by erysipelas, septicæmia, or death; so may trephining, but it is not to be expected. The mortality of amputations of the thumb and fingers is, according to Ashhurst,² 3.3 per cent. This undoubtedly is less than the mortality of amputations through the metacarpus, because amputations of distal phalanges, which are almost without risk, are of course included. The same writer gives partial amputations of the hand a mortality of 6.6 per cent. If, therefore, we estimate amputation of a single finger through the metacarpal bone as having a mortality of 4 or 5 per cent., it will probably be nearly correct. According to the figures of Amidon, given above, trephining is actually much less dangerous to life than this.

IV. In the majority of cranial fractures, the inner table is more extensively shattered and splintered than the outer table.

Many experimental fractures made in the dissecting-room, and observation of cases in the practice of myself and of others, teach me that extensive shattering of the inner table, with only a moderate amount of fracturing of the external table, is of frequent occurrence in other as well as in punctured fractures. I recommend resort to trephining even in more diffused and less accentuated fractures. It is to prevent inflammatory sequences due to splinters forced into the membranes and brain, and to avert the consecutive occurrence of epilepsy and insanity, that the operation should be performed; not because of the fear that symptoms of compression of the brain may arise, nor because necrosis of detached portions of bone may occur.

I feel sure that the element of danger in skull fractures is this splintering of the inner table; and I differ most decidedly from those who esteem it of comparatively little importance. But its great frequency and risk in other forms of fracture are still not sufficiently emphasized by all authorities.

V. Perforation of the cranium is to be adopted as an exploratory measure almost as often as it is demanded for therapeutic reasons.

I am driven to the conclusion that ex-

¹ *Annals of Surgery*, St. Louis, March, 1885, p. 205; see, also, his previous paper, *Medical News*, June 21, 1884.

² *British Med. Jour.*, May 14, 1881, p. 763.

^{*} "International Encyclopædia of Surgery," vol. i., p. 637.

ploratory perforation to determine the absence or presence of internal spiculation is often demanded by the uncertainty of the invisible condition. Without a knowledge of the true state of affairs treatment is empirical; and the risk to subsequent mental health or to life is too great to permit reliance on empirical treatment, when a knowledge of the true condition is obtainable with the slight danger that pertains to antiseptic trephining.

Whenever the fracture, whether originally an open one or so made by an incision, presents the possibility of the inner table being detached and splintered more extensively than the outer, I would cut the scalp to see the condition of the outer table, and I would cut the bone to see the condition of the inner table, in every case where the risk of obscure knowledge is greater than the risk of divided scalp and perforated bone.

The tendency to procrastination in such matters has destroyed many lives. Nancrede's¹ statistics show the mortality of the operation, after symptoms of brain disease have arisen, to be much more than twice as great as in preventative operations—the figures are 52.8 per cent. and 22 per cent.

VI. Drainage is more essential in wounds of the brain than in wounds of other structures.

Gunshot and other wounds of the skull and of the cerebral membranes and hemispheres have long been treated as if drainage was not a necessary factor in therapeutics. We split open a knee-joint, we incise a pleura, peritoneal, or pericardial cavity to give free egress of pus; so must we cut away the cranium and incise the dura mater in analogous conditions. The greatest error in this direction has, perhaps, been in an expectant, instead of an operative, treatment of bullet wounds of the brain.

The hesitation to employ the trephine in bullet fractures, however, has been almost universal. This is, I think, very erroneous doctrine, for death from abscess is very common after bullet wounds of the brain. The fracture is compound, the suppurative process recognized as almost certain to occur, and yet no prevision of moment has according to the usually pursued treatment, been made for drainage and antiseptis.

The statistics of Dr. H. R. Wharton,² concerning foreign bodies lodged in the brain, show the importance of removal when possible. Of 106 cases in which removal was accomplished, only 34 died; of 210 cases in which no attempt at removal was made, 122 died. The death-rate here was doubtless largely due to want of proper drainage.

VII. Many regions of the cerebral hemispheres of man may be incised and excised with comparative impunity.

Physiological experimenters know well that the lower animals bear, without serious risk to life, ablation of quite large areas of the brain-substance. Although clinical experience has shown the same fact respecting the human brain, surgeons have not been sufficiently impressed with the circumstance. They have looked upon the brain and its membranes very much as until recently they looked upon the heart and pericardium—regions never to be approached with trocar or scalpel. Many patients have died of brain abscess or brain tumor, because the timidity of the surgeon prevented the introduction of an aspirating needle or knife to open the pus cavity, or the employment of enucleation for the detachment of a neoplastic growth. This is partly due to the ignorance of surgeons respecting the localization of cerebral functions.

Amidon³ states, that of 100 cases of operation on the head, collected by him during recent years, the dura mater was opened in 33 by either the injury or the surgeon. These gave a mortality of 39.3 per cent.; but he states that in only one death could the fatal issue be directly ascribed to the exposure of the cerebral convolutions, and therefore he gives the mortality of operation inducing exposure of the hemispheres of the brain as 7.6 per cent.

My seventh proposition seems self-evident from the occasional continuation of life and even of comparative health during the existence of large areas of brain softening or suppuration, or of large substitutive growths in the cranial cavity.

VIII. Accidental or operative injuries to the cerebral membranes, meningeal arteries or venous sinuses, should be treated as are similar lesions of similar structures in other localities.

¹ "International Encyclopædia of Surgery," vol. 7., p. 95.

² *Philadelphia Medical Times*, July 19, 1879.

³ *Medical News*, June 21, 1884.

IX. The results of the study of cerebral localization are more necessary to the conscientious surgeon than to the neurologist.

If any of the cerebral functions are with certainty recognized as located in definite convolutions and regions of the cortex of the cerebral hemispheres; if it has been demonstrated that perforation of the skull and incision of the membranes and brain will at times prevent the destruction of life by intracranial inflammation, abscess, or tumor; then it follows as a direct conclusion that a man, who assumes the rôle of a specialist competent to relieve disease by operative measures when medicinal therapeutics become impotent, must, if he is conscientious, make the subject of cerebral localization an object of study. I hold that such study is more necessary to him than to the neurologist, though the latter may, and probably does, need a more detailed knowledge of the subject. The surgeon, when called upon to decide as to the propriety of operation, is often, and, indeed, usually, the sole authority by whom the question must be determined. If operation is required in these cases, it is required at once; no time can be wasted in waiting for the services of a neurologist living in a distant part of the county or State. Often, time to consult even books is scarcely available.

Every case must be individually studied, and the patient's chances of death, of life, with subsequent epilepsy or insanity, or of return to perfect health, carefully weighed. Trephining, properly performed, is in itself so free from danger that in a doubtful case the patient had better be trephined than allowed to run the risk of death, epilepsy, or insanity. Legouest was very nearly right when he said: "Whenever there is a doubt whether trephining should be done, this doubt is probably an indication that operation should be performed."¹

SYLLABUS OF THE TREATMENT OF FRACTURES OF THE CRANIUM.

Closed Fissured Fractures.

1. No evident depression, no brain symptoms. No operation.
2. No evident depression, with brain symptoms. Incise scalp and trephine.
3. With evident depression, no brain

symptoms. Incise scalp and possibly trephine. (See note below.)

4. With evident depression, with brain symptoms. Incise scalp and trephine.

Closed Comminuted Fractures.

5. No evident depression, no brain symptoms. Incise scalp and probably trephine. (See note below.)

6. No evident depression, with brain symptoms. Incise scalp and trephine.

7. With evident depression, no brain symptoms. Incise scalp and trephine.

8. With evident depression, with brain symptoms. Incise scalp and trephine.

Open Fissured Fractures.

9. No evident depression, no brain symptoms. No operation, but treat wound.

10. No evident depression, with brain symptoms. Trephine.

11. With evident depression, no brain symptoms. Possibly trephine. (See note below.)

12. With evident depression, with brain symptoms. Trephine.

Open Comminuted Fractures.

13. No evident depression, no brain symptoms. Probably trephine. (See note below.)

14. No evident depression, with brain symptoms. Trephine.

15. With evident depression, no brain symptoms. Trephine.

16. With evident depression, with brain symptoms. Trephine.

Punctured and Gunshot Fractures.

17. In all cases and under all circumstances. Trephine.

NOTE.—In classes 3 and 11 I should be inclined to trephine if the depression was marked, or the fissures sufficiently multiple to approach the character of a comminuted fracture. In classes 5 and 13 I should trephine, unless the comminution was found to be inconsiderable.

The operation, when decided upon, should be performed at once, or certainly not delayed more than a few hours.

All cases, whether trephined or not, should be treated as cases of incipient inflammation of the brain.

Gradually increasing brain symptoms after head injury, especially if there has been a period of return to consciousness

¹ Lucas-Championnière: "Trépanation guidée par les localisations cérébrales," p. 23.

after shock of traumatism, suggest the occurrence of intracranial bleeding from meningeal vessels, even when no fracture or depression of bone is detectable. Operation is then especially indicated, if the localizing symptoms point to no other region of the cortex and if symptoms do not render cerebral laceration probable.

I believe that operative evacuation should be undertaken in all cases of localized intracranial suppuration, whether the abscess is subcranial, intrameningeal, or cerebral.

If the pus is not found beneath the bone, and the dura is pulseless and bulging, that membrane should be incised. If no pus is discovered, and the general symptoms of intracranial abscess are marked, exploratory puncture and aspiration of the brain should then be performed. In some cases, the surface thermometer may indicate the point on the cranium nearest the focus of suppurative encephalitis.

Scarcely any limitation should be dogmatically given regarding the operative search for pus in undoubted abscess of the cerebral tissue, so long as the aspirating tube is not thrust deeply towards the vital centres located in the medulla oblongata and base of the brain.

In epilepsy following injury much good may at times be effected by the removal of the cranial wall at the site of traumatism.

If operative treatment is instituted for traumatic epilepsy, all the diseased or depressed bone should be removed. The symptoms justifying operation are cicatrices which are sensitive, tender, or abnormally hot by the surface thermometer; pain or sense of brain-pressure at the seat of old injury, which may not be constant, but which is always, when present, referred to the same spot; pain, vertigo, or convulsions produced by pressure upon the cicatrix; depressions or elevations in the bone; fistules leading to necrotic bone; and any symptoms indicating, through study of cerebral localization, brain-lesions in the region of the external scar. Operation seems to me to be especially indicated in these cases, if the scar is in front of the middle of the cranium. If operation fails to relieve, it may be repeated near the old spot of operation after the lapse of several months; for at least one case is known where operation was ineffectual, and subsequent autopsy showed a fragment of bone pressing upon the encephalon.

Operations for the relief of insanity due to cranial traumatism have not been very generally advocated or attempted.

The operation of removing a portion of the cranium is justifiable when, within a few months after a depressed fracture of the skull, progressive mental aberration occurs in a previously sane patient who presents no other assignable cause for the intellectual malady. Operation should be done before the pathological changes cause great imbecility.

Operation is not justifiable when there is evidence that some degree of insanity existed before the injury, nor when the patient has had, previous to the injury, insane delusions, not traumatic, from which he had recovered before the traumatism; nor when the character of the insanity is such that the pathological change is probably located in a region of the brain, distant from the seat of injury; nor when the insanity involves so many intellectual function that general cerebral disease is clearly existent.

Operations for the removal of cerebral tumors have, as far as I know, been attempted only recently.

Amidon¹ was one of the first, if not the first, to insist upon this method of dealing with cerebral tumors. A few months ago, Godlee removed by enucleation a glioma the size of a walnut, situated a quarter of an inch below the surface of the ascending frontal convolution, and which had been located by Bennet.² For 20 days the patient did well, but he died on the 28th day from meningitis at the lower part of the wound spreading down towards the base of the brain on the same side, the whole of which was inflamed and covered with plastic lymph. The rest of the brain was normal. Amidon justly asks whether death might not have been due to the absence of antiseptic precautions and the want of provision for drainage, especially as the galvano-cautery was used to stop bleeding. I am not aware that the operator has definitely stated whether antiseptics were adopted and provision for drainage made.

I have thus considered most of the topics which may be included under the head of cerebral surgery. In fractures, hemor-

¹ *Med. News*, June 21, 1884.

² *Lancet*, Dec. 20, 1884, and Jan. 3, 1885. See Amidon's discussion of its details in *Annals of Surgery*, March, 1885.

hage, and abscess, perforation of the skull, will soon become quite common. In epilepsy, insanity, and tumor, the profession will be more tardy in opening the skull. While I am sure that these conditions, in certain instances, can only be treated successfully by operative procedures, I believe also that other cerebral conditions, less well defined in pathology, such, for example, as incurable and intolerable headaches after injury, may, in time, be justifiably subjected to similar operations.

Harrison on the Palliative and Radical Treatment of the Obstructing Prostate.—It is now upwards of four years since I brought under notice my views and practice as to the prevention and palliative treatment of prostatic obstruction,¹ and eighteen months since I published a communication² illustrating the employment of prostatotomy in more advanced and otherwise irremediable forms of this affection. It is to these subjects I propose again referring. Though the proportion of persons suffering from an obstructing prostate is not inconsiderable, it is matter of satisfaction for me to know from my own observations, and to hear from others who have been good enough to communicate with me, that there are grounds for believing that it has been sensibly diminished by the more general employment of the simple means advocated in my first paper, and that hence the necessity for adopting the more radical measures which form material for description in the second communication referred to has been, and is still further likely to be, sensibly reduced. Still, so long as cases of the latter kind present themselves, so long will it be necessary to carefully consider the various proposals urged for their relief.

It is hardly requisite to point out how frequently we find large prostates in persons who have been, so far as it is known, but little inconvenienced by them, the explanation of this immunity from symptoms being found in the fact that the growth in no way interfered with the outlet from the bladder. In this conservative process there is much that may be imitated by art; and as the regular expulsion of urine from within

outwards is capable of preventing obstruction by the formation of grooves or channels in the hypertrophied mass, so in like manner may the same condition be brought about by the introduction of a suitable instrument along the passage which is threatened with extinction. It is important to notice how slight is the prostatic barrier in some of these instances, but yet how complete is the obstruction which is thus occasioned both relatively to the act of spontaneous micturition and to the introduction of an instrument to relieve it. When we consider how extremely limited physically is the nature of the obstruction in many of these cases, it is not difficult to understand how readily this state may be remedied by the timely adoption of mechanical means. How easily the mere outlet of the bladder may be improved in some instances of obstruction by a large prostate is shown by the undoubted success which frequently followed the practice of Mercier in making a linear incision through the prostatic bar, and more recently by the means advocated by Gouley, where no more than a small portion of the obstruction is punched out by an ingenious instrument contrived for this purpose. Of both of these operations I have had sufficient experience to enable me to conclude that, as a rule, the amount of tissue it is necessary to divide or destroy for the purpose of permanently improving the outlet from the bladder is comparatively small. It is, however, not to be implied that, because the orifice of the bladder is mechanically improved so far as relates to the mere act of letting urine out or an instrument in, the power of spontaneously discharging urine naturally follows upon this; on the contrary, it frequently happens that under the strain of months or years of unaided micturition the muscular power of the bladder becomes sensibly and permanently weakened, or the power of expulsion completely disappears, never to be regained. Hence it becomes, in all cases of impeded micturition, of the first consequence that every means should be taken to avert a catastrophe which by no means ceases with the mere inability to expel urine from the bladder. From the observation of a number of cases of this kind, it seems clear that when the prostate in its growth commences to obstruct micturition the hypertrophic process increases proportionately with the efforts of expulsion. This is only to be

¹ "The Prevention of Prostatic Obstruction." (Churchill, London, 1881.)

² On the Treatment of Certain Cases of Prostatic Obstruction by a Section of the Gland.—Transactions of the International Medical Congress, Copenhagen, 1884.

expected in a part which largely consists of involuntary muscular fibre, and is necessarily more or less involved in the sphincter action of the apparatus. In illustration of what preventive treatment can do, I will select a typical case of the kind which has been under observation for some years.

In 1881 a gentleman of sixty years of age consulted me for an irritable bladder. Not only was there unnatural frequency in passing urine, but the act had lost its normal characteristics, for, instead of the urine being expelled in a stream, it seemed rather to ooze from the penis. Though an examination of the prostate from the rectum revealed but little amiss with the gland, further investigation determined — first, that there was a considerable obstruction within the prostatic urethra; and, secondly, that the bladder was commencing to lose its power. Under these circumstances I advised the patient to introduce a soft instrument into his bladder daily until further instructed. In the course of three months he was practically well, and, beyond passing his instrument occasionally for his own satisfaction, he has remained so. Can it be doubted that this marked change was due to the use of the instrument? What would the patient's condition have been within six months had nothing of this kind been done?

In an experience of this kind, which has not been inconsiderable, I think I may say that where there exists any mechanical obstruction to the escape of urine along the urethra from the bladder, I have never known any harm come when an instrument adapted to the particular case has been selected and is properly used. Where these conditions are not complied with, it is not remarkable that the results have been disappointing. On the other hand, the evidence of patients themselves as to the immediate and permanent advantages attending the employment of mechanical means in the earliest stages of prostatic obstruction is sufficiently ample to render further allusion to this aspect of the question unnecessary.

I will now proceed to notice the treatment employed in those cases of prostatic obstruction where the condition of the patient appeared hopeless of relief by such palliative measures as the use of the catheter. I have now operated under these circumstances in four different ways, which I will briefly illustrate.

First, by a removal of more or less of the obstructing prostate by an incision from the perineum. In two instances where this was done both patients are now alive and well, after intervals of seven and four years, having previously suffered from the most serious forms of prostatic obstruction.

Secondly, by perineal incision and section of the bar, and by the subsequent use of a proper drainage-tube. Let me take two illustrations from amongst several where this was done. In June, 1883, I reported¹ one of my earliest cases where I had thus operated. The patient has since remained under observation, has discarded his catheter for over a year, and is perfectly well. In August of the present year I met a man (J. B——, aged seventy-three) in the street carrying a heavy load on his back, who I recognized as an old patient of mine upon whom I had performed median prostatotomy. I questioned him, and found that he was quite well and had never used the catheter since he left my care. The circumstances of this case, which has not been published, are briefly these: The patient was sent to me by Dr. A. Barron. He had a large prostate, required constant catheterism for retention; the instrument was difficult to introduce, and serious hemorrhage frequently took place. For three weeks he was treated in various ways, but with no benefit. His desire to urinate and his strainings were incessant, and nothing appeared to give any relief. In February, 1884, he underwent median prostatotomy, and wore one of my tubes for seven weeks; the perineal wound closed, and he shortly left the infirmary with the result I have already mentioned. I should add that I have recently had an opportunity of passing a full-sized bougie, when not the slightest hitch was experienced. This man's present condition is a remarkable contrast to what it was previously.

Thirdly, by the permanent retention of a perineal tube with a suitable tap. This has twice been resorted to. In both of these instances it was only intended to use this apparatus for temporary purposes after median prostatotomy, as in the second class of cases, but at the patient's desire the tube was allowed to remain in. In one of these instances the patient wore the tube for three months in the infirmary, and then left to reside at a distance from Liver-

¹ *British Medical Journal*, June 9, 1883.

pool. I have not been able to hear further of him. The second case was where the patient wore the apparatus nearly three months, when he removed it on finding the power and function of the bladder returning. The opening has closed, and when he was last seen by me, nine months after the operation, he was quite well, but he still used the catheter daily. I believe he could do without the latter instrument, but he had suffered so much from retention and difficulty in getting an instrument into his bladder prior to the operation that I was not surprised at his taking this precaution.

I should just say one word on the apparatus used. It consists of my ordinary bladder drainage-tube, as made for me by Mr. Wood, 81 Church-Street, Liverpool, to which is attached a piece of rubber tubing, about two feet long, terminating in a small stopcock; the perineal tube is retained by a modified T-bandage, whilst the end of the tubing is looped into an ordinary belt which the patient wears. All he has to do is to let down the end of the tubing and turn the stopcock when he requires to pass urine. Within three weeks both of the patients I have just mentioned were up and going about the wards as usual. I have frequently had patients up and about within ten days from the operation.

I have sometimes been asked whether I do not find that the urine leaks through the wound by the side of the tube. If the wound is properly made this is not the case. It sometimes happens that after the perineal tube has been worn for three or four weeks the urine is suddenly propelled along the side of the tube, and I have known some even escape along the anterior portion of the urethra. This is a sure indication that the tube may be entirely dispensed with, and that the urethra is prepared to resume its normal function.

Fourthly, by prostatic puncture, without incision, and the retention of the cannula made for me by Messrs. Krohne and Sese-mann. Atrophy of the large prostate has followed this proceeding.

A study of the cases I have arranged under these four headings will, I think, justify me in using the term "radical cure," in connection with the treatment of advanced forms of prostatic obstruction. I will now, in conclusion, turn to the other side of the picture, and refer to those cases

where I have failed to obtain the results I could have desired. I have now operated over twenty times—a number sufficiently large for the purpose of drawing some general conclusions which seem to me of value in connection with this subject. Not a single instance has yet happened to me where I either regretted having done the operation, or directly or indirectly connected the death of the patient with the proceeding. In two instances only, so far as I know, did the patients die; one three weeks after the operation, and another four. Both of these patients lived longer and far more comfortably than they would otherwise have done, and had nothing to regret in what was undertaken for them. Both patients showed after death a condition of the urinary organs beyond repair; both showed the damage that long-continued back-pressure of obstructed micturition is capable of effecting, and to this extent was a cause for regret that more perfect mechanical measures for relieving this back-pressure had not been earlier applied. Both of these cases, however, served to teach how the mechanism of median prostatotomy, as already described by me, might be improved, for both showed that in some instances the form of the prostatic bar was such as to render it wellnigh impossible to divide it adequately, as in lateral lithotomy, from before backwards; it is necessary sometimes to use a long curved probe-pointed bistoury, passed within the bladder from the perineal wound, and to divide from within outwards. Of the importance of this I have since been able to satisfy myself in practice. Only in these two instances, and a third, where I removed almost the whole of a carcinomatous prostate, the patient living in comfort for ten months, and being able to return to his work, did death follow, so far as I can ascertain, either shortly afterwards or more remotely, any of the proceedings I have just referred to under the headings of prostatotomy, prostatotomy, and perineal drainage. The improvements which have recently been made in the drainage of bladder wounds, the arrest of hemorrhage, and in the use of antiseptics, bid fair not only to extend our means of relief in directions which previously seemed hopeless, but to lessen the high mortality which appears to have attended some operations for stone and allied affections of the urinary apparatus.—*The Lancet*, Jan. 16, 1886.

Fewer Drugs.—The part drugs play in the cure of disease and of the patient—for these are not always the same—is thought by some to be very great, while by others it is held to be next to nothing. Between these two extremes may be found all shades of belief and skepticism; as usual the truth lies somewhere between these limits, and every practitioner would assign himself a place somewhat different from the one which would be chosen by his colleagues.

That there are drugs which, under proper conditions, and with intelligent direction, may be made very serviceable, only those ignorant of their use will deny. That opium, ether, mercury, quinine, digitalis, nitrite of amyl, iron, certain of the cathartics, and other remedies may be made to serve useful ends, there is abundant testimony to prove. Why does it so frequently happen that some of these are not intelligently employed, and that the wholesale condemnation of drugs is so frequently heard? One reason, among others, may perhaps be found in the fact that the really valuable drugs have to cover the incapacity of numerous inefficient associates, and there is not time for every practitioner to go carefully through the bushel of chaff.

Does it not then become one of the duties of those members of the profession who interest themselves in this side of medicine, to clear out the worthless and doubtful things which encumber our *materia medica*, and thus bring the better agents more easily within the reach of the practitioner?

It will be urged that there are many remedies considered valuable by some of the profession, which would be discarded by others under those circumstances; let us give ourselves the benefit of the doubt, by getting rid of all such as have not an established reputation. We have an official list of drugs and preparations, including several hundred titles; it is called a *pharmacopœia*, and although a large number of practitioners are quite innocent of a knowledge of its contents, and there are some to whose ears the name even is foreign, it would seem to offer one means of attacking the problem under discussion. It would not be impossible to form a collection of higher average worth than the present *pharmacopœia*, by eliminating redundant and useless drugs and preparations and

adding a very few others. Something of this nature might well be done at the next revision of this book, if physicians would take greater interest in what is already one of the best works of its kind. Let it be recognized, in doing this, that the profession would be better off if they had pointed out to them one or two good remedial agents which they should learn to know intimately, than they now are with a larger number of which they know but little.

Of the great mass of preparations and compounds of uncertain or unknown strength or composition not included in the *pharmacopœia*, nothing need be said to the readers of this Journal.

We are already sufficiently advanced in therapeutics to be able to substantiate by the experience of many years, or by combined experimental and clinical evidence, the claims of a number of good medicines, and to be able to throw away those unable to show a certificate of respectability.

Nor have we to consider only the older useless drugs. There are a multitude of new ones, or old ones under new combinations, which clamor for attention in the medical journals, or for money in the advertising columns of the medical and daily papers. As regards the former class of new remedies, it would be well for the practitioner to resist the temptation to try every new thing which he reads of, and to accept only those which bring reliable evidence of clinical or physiological worth; and by this is meant something more than a report of one or two successful cases, or an account of a few experiments on animals. So far as the majority of practitioners are concerned, it would in nearly all instances be better to consider all new remedies as worthless until they are forced to admit their value, rather than be too ready to welcome all the drugs which are brought to their notice; and they should recognize that they have not, as a rule, the opportunity or the training necessary to form a just estimate of the merits of most of these novelties, any more than they have time to investigate their physiological action, if this were worth the while. Could we possess in the *pharmacopœia* a shorter list of higher average merit, it would be possible for physicians to have a more intimate acquaintance with the properties of official drugs, and later of their actions, and not acquire the habit of using too great a variety of remedies carelessly, and

thereby learning to believe in too many, or to disbelieve in all.

The reduction in the number of official remedies would not be unacceptable to the pharmacist, who would be required to keep fewer of the drugs which are so seldom employed that they deteriorate before they are sold, and thus, with a smaller number, could afford to have a better quality.

After fewer and better drugs are employed, not only their properties, but their action will be more easily kept in mind, and they may be used with greater discrimination and success.

We are tempted to add a word about giving medicines, although this relates to their action as well as to their properties. In many cases a good and sufficient reason for giving a prescription is to help the patient follow accompanying directions about diet or exercise, or to shield the patient from his own or his friends' sometimes absurd whims or advice. Under other circumstances it should be appreciated that more is expected than to prescribe digitalis in every case of rapid pulse, or to give a full dose of opium for every pain; and let us be more familiar with the properties of drugs than to dress a wound with crystals of carbolic acid.—*Editorial, Bost. Med. and Surg. Jour.*, Dec. 24, 1885.

Practical Materia Medica.—A correspondent of the *Medical Record* writes as follows: "Permit me, in as few words as possible, to define what I mean by practical materia medica. Let us have a work embracing facts, and facts only; a full index and *no* preface. How in this realm of doubt can this be done? In this wise. Let us take opium for example. We certainly can give a clear history, and a careful description, including known incompatibles. Let us give such physiological effects on man (not grasshoppers, cats, and guinea-pigs), and *such* effects alone as are known and accepted by the medical world, carefully avoiding and excluding all points now in question. State that in some cases it produces wakefulness, but do not attempt to account for the fact. *Don't* say it is because the vaso-motor system of nerves fails to respond to the stimulus applied to the sympathetic system, thereby failing to produce that peculiar anæmia of the cerebrum necessary to the soporific effect. *Don't*; because some poor student will try to remember the unknown and imaginary reason and forget the fact. Let

us take quinine. We all know that it cures ague, except in certain very exceptional cases, and why it don't cure those we *don't* know. Now if this were the only fact known to medical science, it would be enough to justify the beginning of a practical materia medica. We all know that in every case of fever resulting entirely or in part from septic poisoning, quinine has a wonderful antipyretic effect. We must needs, therefore, teach in our modern elaborate materia medicas, and in lecture-rooms, that quinine, without qualification, is a wonderful antipyretic.

"The result is our young graduate goes home, finds a robust farmer with an acute inflammation and temperature of 106° F., gives him promptly thirty grains of quinine, increases the fever, sets him crazy, and puts the whole house in an uproar, and finally goes back to his books, hoping to read, but really to meditate, on the uncertainty and often impracticability of medical science. We turn to our materia medica and find the official opium suppository one grain. No account of a suppository made containing less than one grain, and yet I remember, in my early practice, being called to see an old and feeble, but very influential, gentleman, who died from opium-poisoning, produced by a one-grain suppository. Every good physician learns, not from materia medica, but from his own experience and at the expense of his patients, the careful use of comparatively few remedies.

"There is no physician of more than five years' practice, let him be of high or low degree, who cannot recall many of his unsuccessful cases, which might have resulted favorably had his early teaching been eminently concise and practical. Let us admit no remedy, therefore, into our materia medica, except those endorsed, not by any single practitioner, but by the medical world. Do you think this a difficult task, and that one practical and compendious volume would contain no new remedies? How recent the discovery of cocaine, yet no doubt its history has reached every village and hamlet in the civilized world. Why are not our medical journals filled with the wonderful properties of Jamaica dogwood, manaca, and celerina? Nor will such practical work impede our rapid advancement, but rather greatly enhance it in this, that it will not be man's highest ambition to introduce a new and worthless remedy, or to model a new speculum, but

to introduce a remedy or fashion a speculum that will find its way into our practical series, not only because of its intrinsic worth, but because it is recognized by the great thinking, throbbing medical world to be a thing of practicability and a joy forever.

"In *The Medical Record* of November 7th is a report of a meeting of the New York Academy of Medicine, held October 22d. Before the Section on Obstetrics a paper was read entitled, 'The Management of Unfavorable Cephalic Presentations at the Superior Strait,' wherein the writer maintains, with reference to diagnosis by digital examination, that 'one suture could not be distinguished from another with satisfaction; nor, by means ordinarily practised could the fontanelles be differentiated.' If this be true why have we deluded ourselves into the belief that we *could* distinguish and differentiate? The writer further states: 'Something more definite must be searched for, and that was the ear, and to do that the hand must, to a greater or less extent, be introduced into the vagina.' In the discussion that followed, this proposition was universally admitted by gentlemen eminent in their profession. Where is the general practitioner, where is the new-born obstetrician, who has not sweat (figuratively) great drops of blood; who has not vilified his own stupidity in his endeavor to perform that which now, I believe for the first time, is *thoroughly* admitted to be *thoroughly* impracticable."

"In the name of *truth*, in the name of the *general practitioner*, but especially in the name of the *medical student*, let us have not only a practical *materia medica*, but a practical practice, and a practical obstetrics."—*N. Y. Med. Record*, Feb. 6, 1886.

SURGERY.

Williams on a Case of Compound Comminuted and Depressed Fracture of the Skull—Trephining—Fungus—Recovery.—A boy aged 13 years discharged an overloaded gun, which exploded, fracturing his skull. After the gun exploded, he ran forwards about fifteen feet and fell upon his face. He was not stunned, and when picked up was able to walk, with assistance, some distance.

The wound in the soft parts extended from half an inch above the internal angle

of the left eyebrow upwards and outwards two inches to the margin of the hair. A probe passed into the wound discovered that the bone was depressed. The pulse was good; breathing regular; pupils moderately dilated, but responded to light; mind unimpaired; phonation good. He had not lost much blood, nor was he suffering from shock to any great degree.

A hypodermic of morphine (gr. $\frac{1}{4}$) was administered, the wound was cleaned, and the patient was kept perfectly quiet, and cloths wet with ice-water were kept constantly on the wound during the night.

April 3d, 9 a. m.—Pulse 100, full and strong; temperature 100.2°; breathing good; pupils sluggish; slight delirium during the night.

7 p. m.—The boy had vomited twice. Pulse 108, full and strong; temperature 100.2°; respirations 14, and sighing; mind clear, but answered slowly, and disposed to be left alone; pupils slightly contracted and reacted sluggishly. Morphia, gr. 1-16, p. r. n., and cold applications to be continued.

April 4th, 7 a. m.—Patient still in the same condition. Under ether, trephining was done and thus described by the author:

"I enlarged the external wound by a crucial incision, and, peeling up the periosteum, the bone was found to be comminuted over an area of one inch and depressed into the brain-matter from one half to three quarters of an inch. There had been an escape of a small amount of brain-matter. An attempt was made to raise and remove the fragments of bone, but that being impossible, I applied the trephine. The fragments were then removed and a depressed angle of bone raised with the elevator. The wound was thoroughly cleansed, the membranes carefully replaced, and the external wound closed with sutures, except the lower angle, which was left for drainage. A compress, wet with a 1 to 1,000 parts solution bichloride of mercury, was applied to the wound and retained by a roller bandage.

"The patient progressed very well. The pulse and respirations became normal, and the temperature ranged between 98° and 100.8°. There were no serious symptoms except some vomiting, headache, and photophobia."

April 14th.—Dressing the wound to-day I noticed that the edges, which for two days

had been bulging, were separating and a fungus mass protruding. This mass bled freely, was painless, elastic, pulsated synchronously with the brain, and discharged a thin, inoffensive pus."

A well-marked hernia cerebri, accompanied by coma, clonic spasms, and fever, developed, was removed, and reappeared, to finally take on a granulation process and heal.

November 5th.—The boy is in fine health and is going to school. There seems to be no trouble with his brain, no headache or other unpleasant symptoms, and his mental faculties are apparently as good as in any other boy of his age and circumstances. *Atlanta Med. and Surg. Jour.*, Feb., 1886.

Vinke on Cerebral Surgery since the Introduction of Antiseptics.—The author concludes by enumerating some of the pathological conditions of the cranium and its contents, requiring trephining.

1. For Cranial Fractures : The operation becomes imperative in all forms of fracture, where the symptoms are urgent and persistent. In simple and compound *depressed* fractures, with or without comminution, it is often advisable to trephine, even if no brain symptoms be present. In these cases the surgeon must be guided by the nature and extent of the injury.

2. For Intracranial Hemorrhage : Trephine and remove clot.

3. For Intracranial Suppuration : Trephine and, if necessary, puncture the dura and explore the brain, to give exit to pus.

4. For Foreign Bodies which have entered the cranium : Trephine and remove them, when they can be located.

5. For a Cicatrix, the result of an old fracture, Caries, and Necrosis : Trephine and remove the morbid conditions, as soon as they excite cerebral symptoms.

6. For Intracranial Tumor : Trephine if the same can be localized and is accessible. The operation is of course contra-indicated in all diffused injuries of the cranium, when the brain already has sustained irreparable contusion and laceration, as in these cases it would be absolutely useless. — *St. Louis Cour. Med.*, Jan. 1886.

Brose on Fracture of the Skull.—A child was kicked by a horse in the right parietal region. The next day the patient regained consciousness and was able to talk, but had complete paralysis of the left side of the face, and left arm and leg.

Fever, great listlessness, and irritability occurred. The bromide of potash, 10 grains, every two hours, was prescribed, and the cold applications were ordered continued.

On the third day the temperature became normal. On the sixth, a chill and fever occurred. On consultation an exploratory incision was determined upon to liberate the retained pus, and see if there was depressed bone and liberate the same. The incision revealed the presence of a depressed part of the parietal bone. The adhesions with the dura mater were severed, and the bone removed from the forceps. The fragment embraced both tables of the skull, was wedge-shaped with apex posterior, and about two inches in length. Much pus escaped from the cortex of the brain after the incision. The entire length of the fracture could now be examined with the finger. The patient suffered very much from the operation, and was pulseless.

In four months the boy had fully recovered his former health and activity. An opening still exists in the skull, which by actual measurement is $\frac{3}{4}$ x $5\frac{1}{2}$ inches in its greatest measurement, in the middle of the parietal bone. Pulsation is distinctly seen through the cicatrix.—*Med. and Surg. Reporter*, Jan. 23, 1886.

Maher on a Case of Compound Comminuted Fracture of Skull, Abscess on the Dura Mater, Hernia Cerebri and Abscess in the Brain.—Recovery.

—The patient, a girl of 4 $\frac{1}{2}$, fell twelve feet on to an asphalt pavement. She became unconscious and vomited blood. There was a small lacerated wound below the right frontal eminence. The surrounding parts, and the eyelids were swollen : there was no subconjunctival bleeding but some bleeding from the nose. On examination of wound, brain matter was found to be present between the gaping edges of the fractured frontal bone. The wound was dressed with iodoform and absorbent wool ; a mercurial purge was ordered, and the head shaved and an ice-bag applied. During the night, about six hours after the accident, convulsions, chiefly left-sided, came on ; these passed off towards morning, and she remained in a semi-unconscious condition, occasionally showing symptoms of irritation for three days. The wound discharged some offensive matter for a few days, then granulated and healed. Along with this the general condition improved,

and at the end of the week it looked as though she was going to get well without further trouble. Fourteen days after the accident vomiting came on, and was followed by convulsions. The site of the injury did not show any evidence of trouble within, but there was high temperature, followed by remissions.

This child was thin, pale, and weak, lying on her left side with her face towards the wall, her arms flexed, her back ached forwards, and her knees bent; she was very irritable and restless, complaining much of pain in the head, principally in the occipital region, and when touched or spoken to she cried peevishly. Immediately below the right frontal eminence was a scar about three quarters of an inch long, with a small opening, from which came a small quantity of thin purulent discharge. On passing a probe into this opening, bare bone could be distinctly felt. The child was at once placed under an anæsthetic, and making a free crucial incision over the seat of injury, a triangular piece of loose depressed dead bone was removed, allowing fully half a drachm of thick foetid pus to escape from the surface of the dura mater. The dura mater was thickened, but apparently uninjured, and the pulsation of the brain could be distinctly felt. The surface of the dura mater and the flaps were now thoroughly washed with a solution of carbolic acid (1 in 20), and the wound dressed antiseptically with carbolic gauze.

On the third day marked hernia cerebri appeared, covered with thick greenish-yellow lymph, and pulsating freely; T. 99.2°; pulse 115. With the intention of making flaps of skin, and suturing them over the hernia, the child was placed under an anæsthetic. Upon enlarging the wound, and dissecting up the flaps, a piece of dead depressed impacted bone was noticed, which, after some difficulty, was removed. The edge of the adjoining bone was somewhat necrosed, but as this was neither depressed nor detached, and considering the child had been under an anæsthetic nearly three quarters of an hour and was in a very critical condition, it was deemed advisable not to interfere with it. The flaps were now brought together over the hernia with silver sutures, and an india-rubber drainage-tube inserted between the skin and the hernia. The operation was performed under the spray, and the wound dressed with carbolic gauze.

On the fortieth day after the operation the patient was discharged. A month later with the exception of a discharge from the wound she was quite well.

Twenty-three days later she was found lying on her back in bed with convulsions confined to the left side. The spasms were rhythmical and confined to the muscles of the left side of the face, the eyelids of both eyes, the flexors of the left arm, the flexors and pronators of the left forearm, and the internal rotators of the left thigh. The convulsions of the face were more marked than those of the upper extremity, and those of the upper extremity more marked than those of the lower. The eyes were rolled up, and the pupils, which were of ordinary size, contracted to light. Whilst the anæsthetic was being administered, some pus, smelling strongly of sulphuretted hydrogen, flowed from the small opening in the wound, and this apparently came from the abscess in the brain. Although the brain could be distinctly felt pulsating, it was plain there was an abscess in the frontal lobe. A fine probe with almost a pin's point was passed through the external opening, but it met with resistance in every direction until raised perpendicular to the vault of the cranium, when it passed, almost of its own weight, downwards and backwards for about an inch and a quarter without meeting with any resistance. A silver-grooved director was passed in the same direction. When it had passed in about an inch, pus smelling strongly of sulphuretted hydrogen ran up the groove, staining it black. A knife was passed along the groove of the director into the brain for nearly an inch and a half, when thin, yellow, foul pus escaped with force. Pus continued to flow so freely that hemorrhage was dreaded, and to check the flow, the child's head was turned to the opposite side, until a syphon syringe, containing a warm solution of carbolic acid (1 in 40) was prepared. Then the nozzle of the syphon syringe was passed into the abscess cavity, and the solution flowed gently. A probe passed downward, backward, and inward for at least two and a half inches before meeting with any resistance. The resisting substance had a soft feel, and the point of the probe could not have been far from the posterior part of the cribriform plate of the ethmoid. The quantity of pus was variously estimated by those present at from one and a half to two ounces. An india-rubber

drainage-tube about one and a half inches in length was introduced, in which the carbolic solution, filling the abscess cavity, could be seen to rise and fall with each pulsation of the brain. The wound was dressed with carbolic gauze. The patient had, after the operation, hemiplegia of the left side. Six hours later she had regained consciousness, but had partial hemiplegia of the left side. One month after the last operation, the child was entirely well.—*Austral. Med. Gaz.*, Dec., 1885.

Tremaine on an Unusual Case of Fracture of the Skull.—A man of thirty-two was struck on the head by a falling brick. Twenty four hours later he was unconscious without paralysis.

The trephine was, applied and a piece of bone elevated. A clot was found between the cranium and dura mater. On removing this, a rent was discovered in the dura mater, with the clot extending beneath it. A sharp arterial hemorrhage came on, evidently from a vessel in the dura mater. In order to find the bleeding point and secure it, an additional button of bone was removed. About this time the bleeding stopped; it undoubtedly came from a vessel wounded at the time of the accident. The wound was dressed antiseptically with iodoform, after thorough irrigation with mercuric bi-chloride solution, 1 to 1000. Towards the close of the operation, the patient manifested symptoms of returning sensibility; no anæsthetic was used. Ten minutes after the last dressing was applied, he gave his name correctly, and asked for something to eat. The next morning consciousness was complete; he was quite rational. Uninterrupted recovery took place; he was discharged, cured.—*Buff. Med. Four.*, July, 1885.

Whitehead and Oliver on Trephining in Traumatic Epilepsy.—The patient fell down a quarry, a distance of thirty feet, in May, 1884, and received a compound fracture of the skull, for which he was treated for seven weeks in the Bradford Infirmary. Since his discharge, he had suffered from constant headache, and for the seven weeks preceding his admission into the Manchester Infirmary on September 29, 1885, he suffered from epileptic fits, sometimes amounting to six during twenty-four hours, and never free from headache and depression during the intervals. On October 2d, he was trephined immediately outside the area of the fracture. Nothing abnor-

mal was observed through the aperture; nevertheless, the man had ever since, with the exception of one attack, been free from fits, and his headache and depression had disappeared. Mr. Whitehead attributed the improvement rather to reflex influences than to any direct result of the operation.—*Br. Med. Four.*, Jan. 2, 1886.

Dr. Oliver showed a boy who had been trephined in the right parietal region for supposed traumatic epilepsy. The fits had developed after a blow on the head, and although on admission to the infirmary no injury to skin or bone could be detected, it was decided to trephine, as the epileptic phenomena were unilateral. The opening was made an inch above and behind the right ear, and a quantity of effused serum and lymph removed. The wound healed up well, but the fits continued, though with less severity and frequency. There had been no subsequent bulging at the seat of the operation.—*The Lancet*, Jan. 9, 1886.

Horsley on the Functions of the Thyroid Gland.—Last year he extirpated the thyroid glands of monkeys and dogs, and obtained results which led him to the conclusion that this organ exercises very important metabolic functions. He believes that the thyroid in some way transforms mucinoid substances so as to make them available for further purposes in the economy, and he also produces evidence to show that the perfect formation of the blood is furthered by the presence of the same organ. It need hardly be said that Mr. Horsley was not the first to extirpate the thyroid gland from animals, nor was he the first to show that the symptoms thereby resulting belonged to the same category as those of myxœdema, cretinism, and cachexia strumipriva. But it was his chief care to prove that the loss of the thyroid was the *causa causans* of the symptoms, and that the likeness of artificial myxœdema to the other diseases just mentioned was something more than a mere similitude.

If the gland be slowly destroyed by a chronic sclerosing process leading to a gradual disappearance of the working tissue, then we have myxœdema lasting a corresponding length of time, and manifesting a suitable group of symptoms. Rapid removal of an organ cannot be expected to give us the same order of symptoms as its slow destruction. Mr. Horsley has found that monkeys which have been deprived of their thyroids can be kept alive

from four to six months by the employment of artificial heat. This method not only prolongs the duration of life, but alters the mode of onset of the symptoms, and indeed tends to cause the disappearance of some of the symptoms of the early stages. It would be of much interest if it could be shown that a slowly induced artificial destruction of the thyroid in monkeys gave an even more perfect resemblance between artificial and human myxœdema. It is not possible for an experimental pathologist to set up a chronic sclerosing process in the thyroid gland by means of a slow form of irritation such as that caused by setons, or by some other kind of continuous irritation? In contemplating the resemblances between the natural and the experimental diseases, allowance must be made for differences of constitution and for the time of life at which the removal takes place. Age exercises a very important influence in both the experimental and natural disease, for it is found that young dogs and animals die rapidly with a sort of convulsive group of symptoms; and Kocher's results on a man show that age also is a powerful element in the production of cachexia strumipriva.—*The Lancet*, Jan. 9, 1886.

Humbert on Extirpation of a Cancerous Thyroid Body.—The patient was a woman of forty-two, who entered the Hôtel Dieu for a tumor of the thyroid body which caused difficulties in deglutition and respiration.

The goitre had remained stationary for a long time, then all of a sudden it began to grow rapidly and become indurated.

Breathing and swallowing having become very painful, M. Peyrot decided to operate, as the general condition was good, and there were no secondary deposits.

An attack of suffocation after cutting the isthmus obliged him to perform tracheotomy before proceeding. Adhesions of the right lobe of the tumor compelled him to ligate the internal jugular vein in two points, above and below; he had also to ligate the common carotid and the internal and external carotid; also the pneumogastric nerve was cut above and below the tumor.

Fifteen days later the patient was able to be about. Three weeks after the operation the patient died with a return of the disease in the glands of the neck. Autopsy demonstrated that the mediastinum was filled with diseased glands and the apex of

the lung studded with cancerous nodules.—*Rev. de Therap.*, 15, Jan., 1886.

Keene on the Treatment of Colles' Fracture by a New Method.—This consists in putting up the fracture with the hand extended nearly to a right angle with the arm, and supported by a wire splint. If the forearm is placed on a flat splint so that the fingers are flexed over the end, it will be noticed that the radius does not touch the splint at all, and the ulna only on its upper third. If, however, the hand is lifted until fully extended, the radius will touch the splint at its lower end, the thenar and hypothenar eminences of the hand being lifted out of the way. The flexors act at their best advantage when the hand is thus extended, and regain flexibility and strength rapidly when the splint is removed. When the hand is clenched, it moves quite perceptibly to the ulnar side of the arm. In the treatment of this fracture, the flexor muscles should be placed at their best advantage, the extensor muscles should be placed at their greatest disadvantage, and the end of the radius should be brought down upon the splint.

To accomplish these ends it is only necessary to bend a piece of ordinary telegraph wire, first into the shape of an ordinary hair-pin, then bend up sharply about two and a half inches of the closed end, flattening somewhat the top of the bend so that the fingers may rest easily upon it at their articulation with the hand. The ends of the wire are fastened with a strip of tin curved to fit the arm, and with a second strip under the end of the radius.

Dr. Keene reported three cases in which his splint fulfilled all the conditions of success, avoiding pain and swelling during treatment, and preventing subsequent deformity and impaired function of the hand and forearm.—*Bost. Med. and Surg. Jour.* Dec. 24, 1885.

Parkhill on a New Treatment Suggested for Fractured Olecranon.—

The operations of Horeau, Gaillard, and Pancoast involved the danger of a synovitis and consequent ankylosis as the result of opening the joint; not to speak of the minor troubles such as caries, necrosis, pyæmia, etc. The writer suggests the following method of procedure.

By a subcutaneous operation denude the fractured surfaces of all ligamentous or fibro-cartilaginous tissue that may have formed. For this purpose an instrument

is suggested having a blade similar in size and shape to an ordinary tenotome, but having a double edge, bent at an angle of 45° with its shaft.

The skin should be punctured not in the line of the fracture but to one side, thus making a valve-wound. Having threaded a McClellan¹ needle with strong silver wire, introduce it at this opening and carry as close to the bone as possible, including, if it be to the distal side of the fracture-line, the fibres of origin of the forearm muscles and the periosteum. Crossing the gap between the fragments, let the instrument emerge on its opposite side at a point corresponding to that of entrance. Leaving the wire in position, withdraw the needle. After being again threaded, let it be re-entered at the point of exit and carried across the opposite fragment including the fibres of insertion of the triceps and the periosteum, to emerge at the first point of puncture. When the needle is removed it will be observed that the four ends of the wires issue from the two points of puncture. The amount of soft tissue included by the wires must vary with the case and the judgment of the operator. A careful examination should be made to see that the ulnar nerve is not within the tissue surrounded. By twisting corresponding ends of wire, the fragments will be brought into apposition. If desirable, the ends may be cut close and allowed to disappear, thus making the ligature, wholly sub-cutaneous. One wire might be used after the manner of ligating a varicocele, but should it be desirable, either after the cure is completed, or at any other time, to remove it, it will be found that two wires can be taken out with less pain to the patient, and greater ease to the operator, than one.

A certain amount of inflammation will be engendered by the ligature, but probably not more than will be necessary to the process of cure. Should it be excessive, however, circumstances will be most favorable for its control. An anterior splint should be used, holding the arm in a slightly flexed position. This operation was at first intended only for un-united fractures. Statistics show such a small proportion of cases in which bony union has taken place, that it becomes a question whether it is not a proper method of procedure in re-

cent fractures.—*Denver Med. Times*, Jan., 1886.

Cobleigh on Voluntary Subluxation of Lower End of Ulna.—A fracture of the ulna had occurred in a young woman of 18, about one and a half inches above its inferior extremity. The superior fragment had extruded forward at time of injury through the median line of forearm to slight degree. Union was firm and bony. But the fragments had united at an angle, salient to the inner and posterior forearm, yet only very slightly noticeable by the eye; not really a deformity, and not materially interfering with the usefulness of the member.

What attracted attention at once, however, was the phenomenal motility of the distorted bone at its ulna-radial articulation. With the greatest care this bone could be moved forward, backward, and away from its fellow, laterally (with easy yielding of the superincumbent soft tissues) to the extent of five-eighths and three-fourths of an inch. While quietly manipulating thus, she laughed and said she could do that herself, and proceeded at once to make good her words. She moved the ulna forward and backward with ease, but had no voluntary muscular power to abduct that bone. She remarked that when she was a mere child the other arm had been broken, and had left the wrist in same fix, as to motion. She had the same power of muscular dislocation of ulna here, as in left forearm, but the most careful search failed to find the slightest trace of any former fracture hereabouts. She also insisted that the preternatural motility of left ulna never existed till after the fracture of last year, but that she often entertained and diverted her young associates by luxating the right bone.

She has the power of approximating her scapulæ to within half an inch of the touching of their internal borders, and can move them with undue freedom in every direction, at the same time causing crepitation and loud popping under their surfaces as some people "crack" their knuckles. She is, for her age, a little under size, and, while not by any means spare in build, is lacking to a slight degree in plumpness, though hardy and healthful.—*Cincinnati Med. News*, Dec., 1885.

Jessup on Dislocation of the Ungual Phalanx of the Thumb.—A Frenchman, sixty-five years of age, residing

¹ A curved canulated needle about three inches in length fitted into a handle.

three miles south of town, fell into his cellar on November 9, 1885, sustaining various bruises on the body and head. He was well enough on the third day to come to town to have his thumb examined. In his fall he injured it, and as seen, there was considerable swelling, and the second (ungual) phalanx was immovably fixed in a position almost at right angle to the line of the first phalanx. Careful examination revealed the articular surface of the second phalanx looking backward, and the phalanx displaced in the same direction. The reduction was simple. Flexion was forcibly made, and at the same time pressure in a forward direction was exerted on the articular surface of the phalanx. This was seen by another surgeon, and was undoubtedly a case of dislocation of the second (ungual) phalanx backward on the first phalanx.—*N. Y. Med. Record*, Jan. 16, 1886.

Lagorski on Two Cases of Backward Luxation of the Humerus.—Lagorski, in the *Gaz. lekarska*, No. 35, 1885, narrates the following cases:

1st. A youth of seventeen, carrying a heavy load, fell across a beam, and his coat became so entangled that his arm was rotated inwards and drawn upwards. When examined the elbow was strongly flexed and directed forwards and inwards. The lower angle of the scapula projected, and under the spine of the scapula the head of the humerus was plainly felt. The extremity was shortened 1.5 cm. Reduction was easily accomplished under an anæsthetic by rotating the arm outwards and simultaneous pressure forward on the head of humerus.

2d. A man of twenty-six fell from the wagon in which he sat with his right hand behind him and a part of the load fell upon his shoulder. There ensued much pain and swelling of the shoulder-joint. On the tenth day the arm could be slightly moved. On examination the extremity was found to be lengthened 2 cm. The elbow as sharply flexed and directed inwards and forwards, the head of the humerus was plainly felt behind the acromion. The arm could be moved forward and inwards but in no other direction. Under an anæsthetic reduction was accomplished.—*Cent. für Chir.*, 26th Dec., 1885.

Franks on the Advantages of the Principle of Dry Dressings in Antiseptic Surgery.—The ground for discussion on the principle of antiseptic surgery

had been shifted lately. That principle was almost universally recognized; the question now was as to the best methods of applying it. The ideal wound was one similar to a subcutaneous wound kept at perfect rest. The mode in which Lister's method failed to attain the ideal was that, by the necessity of frequent dressings, absolute rest could not be secured. In order to get uniformly good results from the method of dry dressing, the following points were insisted on: 1, the most rigid method of rendering and preserving a wound aseptic must be observed; 2, there must be absolute hemostasis; 3, drainage-tubes must be abolished, and in place of them a natural system of drainage substituted, by means of which no foreign bodies are left in the wound—a method due to Neuber, of Kiel; 4, all cavities or spaces in the wound must be prevented by suturing together the deep tissues; 5, the application of large quantities of highly absorbent material, rendered antiseptic; 6, the abolishing of all mackintosh or other impermeable material from the dressings; 7, the employment of a stable antiseptic in the dressings, instead of a volatile one like carbolic acid, or eucalyptol. The antiseptic best suited for the purpose was corrosive sublimate. The dressings employed by Mr. Kendall Franks consisted of a piece of sero-sublimate gauze previously wetted with carbolic solution—1 in 40—directly over the wound, and over the contiguous skin, so as to protect them from the action of the sublimate. Pads made of turf-moss containing 1 in 400 of corrosive sublimate, or wood-wool, containing 1 in 200 of the same antiseptic, made up in gauze-bags, were applied over the deep dressing in sufficient quantity, and the whole firmly bandaged on with a calico bandage. These dressings could be left on for weeks. Mr. Franks gave some examples to illustrate the results obtained, which included cases of radical cure of hernia, healed under one dressing in ten days; excision of the right lobe of the thyroid gland, soundly healed in ten days under a single dressing; removal of cancer of the breast, with clearing out of the axilla, under one dressing in a fortnight; excision of the knee, perfectly healed in three weeks under one dressing; and excision of the hip, healed in three weeks under three dressings. These cases were not exceptional. Almost every operation case had a similar history; the cases quoted were only

cited as examples. — *Brit. Med. Jour.*, Jan. 2, 1886.

Gordon on a New Surgical Dressing for Wounds.—Experience has demonstrated that, however carefully we may apply our drainage-tubes to the deep portions of the wound (under-drainage), we find oftentimes more or less swelling of the edges of the wound, and, if sutures are retained more than two or three days, inflammation and suppuration take place, with failure of primary union, or at least some suppuration at the suture holes. The stasis and tension, due to strangulation of the tissues by the sutures, produce an amount of effusion sufficient to become a focus for decomposition and inflammation. In short, while we have provided for under-drainage, we have omitted to properly provide for *surface* drainage.

Within the past year it occurred to me that if glycerine could be properly applied, we had the desired factor for the production of surface drainage. The well-known property it possesses for draining and depleting tissues is demonstrated by every gynecologist who is daily using it for vaginal packs. Its strong affinity for water causes the rapid exosmosis of serum from the vessels with which it comes in contact, and at once relieves them of any excess which may exist.

After sponging the wounds thoroughly with water, as hot as could be borne by the hands, I squeeze out pads of absorbent cotton from the same water, and then saturate them with glycerine and apply them to each cut; over this dry cotton, and bandage over all; no redressing for four days, when all sutures are removed. From each pad a large amount of water ran for two days, saturating the bandages even. There is no further trouble from the wounds.

The glycerine used in all the cases given above, with one exception, was what is known, in commerce, as "common glycerine." I use this in all gynecological work, and for the past few years have dissolved in each pound and a quarter of glycerine half an ounce of boracic acid. This I happened to have with me when I made my first trial, and have used the same each time since, with the exception named, when I used a much stronger solution of the acid. If any one should claim that the effect produced is due to the antiseptic virtue of the boracic acid, he will claim

more for a two and one-half per cent. of the acid than any one has yet believed it possessed. I shall use glycerine alone at the next trial, and shall expect equally good results. — *Bost. Med. and Surg. Jour.*, Dec. 31, 1885.

Kaegler on the Employment of Resorcin in Erysipelas.—Kaegler in the *Deut. Militär Zeits.*, 1885, p. 187, reports the use of a salve of resorcin 5 parts, to vaseline 20 parts, with the best results in cases of erysipelas, following the recommendation of Andees. The salve is rubbed in and then covered with wadding. In 36 hours the erysipelas usually disappears. It is a question whether this remedy works better in deep tissues than other antiseptics. — *Cent. für Chir.*, Dec. 12, 1885.

Lewis on the Diagnosis of Injuries to the Sacro-Iliac Articulation.—Dr. E. A. Lewis, in a paper on the above subject, calls particular attention to these points in diagnosis.

1. The history of the injury. Any force which rotates the pelvis under severe pressure, or any force which acts as a wedge between the sacrum and innominate bone, is liable to injure this sacro-iliac articulation, although it does not cause complete separation and deformity.

2. The symptoms are usually associated with those of contusion of the hip, but differ in this, that the patient must lie only on the back for a long period of time, the slightest lateral pressure on the pelvis being unbearable.

3. The patient is able to be assisted to the erect posture, and to move about on crutches for some time before being able to lie on either side.

4. Many months elapse before the patient can walk with ease, and frequently the injury is permanent to the extent of rendering him unable to do any active work.

5. A peculiar affection in walking, the uninjured side being used as a pivot on which to swing the pelvis, and thus save strain on the affected articulation.

I believe there is many a man going about to-day, with some difficulty, who has suffered from this injury, which has been considered and called "contusion of the hip," or perhaps simple "injury to the hip," without further specification as to its character.

This class of injuries is apt to have a permanent defect in walking.

The articulation is never so strong as before the accident.

The points in differential diagnosis may be arranged as follows :

Contusion.

The cause is a direct blow or fall.

The thigh of the affected side will not endure passive motion.

Patient can turn or be turned on the side after a short time without causing much pain.

Patient suffers pain in the soft parts surrounding the hip-joint.

Patient recovers completely in a few days, or, at most, weeks.

There is apt to be ecchymosis and tenderness on pressure over the soft parts.

Injury to Sacro-iliac Articulation.

The cause acts as a wedge between the sacrum and os innominatum, or rotates the pelvis under severe pressure.

The thigh of the affected side may be freely moved without causing pain.

Patient can not turn or be turned on either side for a long time, and can even walk about some before being able to endure any lateral pressure on the pelvis.

Patient suffers no pain when lying quietly on the back, unless the injury is accompanied by contusions.

Patient does not recover for months, and frequently the injury is permanent.

There is no ecchymosis, and pain on pressure is only felt when the force is applied to the bony pelvis, and then at the seat of injury—i. e., the articulation.

The explanation of the symptoms of pain on lateral pressure, and the ability to stand erect and walk some before being able to lie on the side, is not difficult. A glance at the pelvis in its natural position will show. It is naturally inclined at an angle of 60° to 65°, and pressure from above downward or from below upward is made against the bony pelvic ring, and inclines to press the articular surfaces together, and not to call on the ligaments at all; while lateral pressure inclines to put the ligaments on the stretch and separate the joint surfaces.—*N. Y. Med. Jour.*, Dec. 26, 1885.

Desnos on Fractures of the Ribs by Muscular Contraction.—M. Desnos records two cases of spontaneous fracture which seem to indicate an osseous change in which there was no alteration of the bones. One of the patients was only thirty years old; both were males, contrary to the opinion that spontaneous fractures are more frequent among women. Such fractures are common in pregnancy, osteoporosis, and nervous affections. They are located

among the middle ribs. Their diagnosis is easy, prognosis good, treatment simple.—*Rev. de Thérap.*, Nov. 1, 1885.

Pilcher on Arterial Ligation as a Prophylactic Measure after Sudden, Complete, and Permanent Occlusion of the Chief Vein at the Root of an Extremity.—

1. Serious circulatory and nutritive disturbances are to be apprehended :

a. In the upper extremity, when, in addition to the occlusion of the main vein at its root, simultaneous occlusion of any considerable number of the lesser and collateral branches has also taken place.

b. In the lower extremity, when the occlusion of the main vein at its root is sudden and complete, and has not been preceded by any conditions which might have occasioned a previous dilatation of collateral channels or the development of new ones.

2. The accidents of excessive œdema and of gangrene, when they occur, are due to the intense and active congestion of the limb through the arteries with blood for which there is no adequate outlet.

3. The development of collateral paths is not by the breaking down of valve-barriers at the entrance of large collateral trunks, but by the dilatation of a multitude of minute branchlets. To effect this, an increased arterial *vis a tergo* is not required. Any increase in the normal blood-pressure is attended with danger of overwhelming and fatally choking up the somewhat slowly enlarging collateral radicles.

4. The diminution of the amount of arterial blood which enters a limb whose chief venous outlets have become occluded, down to an amount not greatly in excess of that which can readily find an outlet from it through paths still remaining, is the first great indication to be fulfilled in the treatment.

5. Whatever method is adopted to restrain the flooding of a limb with arterial blood, it must still permit the entrance of a supply sufficient for the nutrition of the limb. For this reason, in the lower limb, ligation of the common femoral is to be avoided, especially in the light of the disastrous results of such ligations already recorded.

6. Ligation of the axillary artery in the upper extremity and of the superficial femoral in the lower are safe expedients, and to be adopted as prophylactic measures, whenever occlusion of the venous outlets of a limb is so great as to hazard

the integrity of the limb by reason of the circulatory stasis produced.—*N. Y. Med. Jour.*, Jan. 6, 1886.

Chelchowski on a Case of Thrombosis of the Ulnar Artery with Gangrene of the Finger.—Chelchowski, in the *Gaz. lekarska*, No. 12, '85, reports the case of a decrepit woman of seventy, with advanced atheroma of all the arteries, in whom thrombosis of the ulnar artery took place which felt like a hard pulseless cord. On the second day she complained of severe pains in the third, fourth, and fifth fingers, the skin of which became livid. The skin of the last phalanges was insensible to pricking. Prolonged suppuration followed the pricking. The skin of the phalanges having sloughed off, healing commenced. The deeper tissues and the joints remained intact.—*Cent. für Chir.*, Dec. 26, 1885.

Thornton on a Successful Case of Gastrostomy for the Removal of a Large Mass of Hair from the Stomach.—A girl of eighteen had been in the habit of "eating the combings of her hair and sewing-cotton ends to clean her tongue." She presented herself with an abdominal tumor, which was evidently located in the stomach or transverse colon. Other treatment failing, an operation was decided upon.

The parietes were incised in the middle line, the incision beginning two inches above the umbilicus and passing on its left to one inch below it. Stomach exposed, greatly distended by solid mass, which was evidently moulded to the shape of the viscus. Some omentum adherent to the surface of the stomach and to the parietes separated and ligatured. Incision extended two inches further below the umbilicus. Space between distended stomach and parietes carefully packed all round with carbolized sponges. Anterior surface of stomach grasped and a large fold of the great curvature brought out between the lips of the abdominal incision. Another layer of sponges packed over the raw edges of the wound round this fold. The fold transfixed and incised by a transverse incision five inches long, care being taken to avoid vessels as far as possible; a few spouted, but were easily controlled by pressure forceps. The mass of hair was at once seen, filling and distending the stomach, and was extracted by a vulsellum with a slight turning movement. The mucus

was carefully wiped away all round, as the mass came out, with carbolized sponges, and the cavity of the stomach was at once thoroughly cleansed with them. A large carbolized sponge was then laid in the stomach to keep the edges of the wound in position for suture and prevent accumulation of blood in the organ. Fifteen sutures of fine carbolized silk were then introduced through all the coats, the needle being slanted through the wall so as to come out just at the inner edge of the mucous membrane, which was much inclined to curl. These interrupted sutures were passed so as to control the cut vessels, and no ligatures were used. Another row of similar sutures were then passed between each of the deep sutures, but only through the peritoneum. The deep sutures entered the peritoneal coat about a quarter of an inch from the edge of the incision, and were a third of an inch apart; the superficial sutures were entered at about the same distance from the edge, and ran along just under the peritoneum. When these were all in place the sponge was removed from the stomach, and they were tied, the deep first and then the superficial. These two rows caused some inversion of the peritoneum, and the two outer and upper peritoneal edges of the depression thus formed were brought together by a continuous suture of very fine carbolized silk. There had been no escape of blood or other material into the peritoneum, and no exposure of its contents to chill from the spray. The closed wound measured exactly three inches. The sponges used for the mucus and for the interior of the stomach were kept quite separate from those used for the peritoneum. During the suture of the external wound the nurse was made to count the sponges aloud, my usual custom in ovariectomy. The usual gauze dressing, with straps, was employed. There was no drainage. When the patient was placed in bed, after a two hours' operation, the pulse was 100, and the vaginal temperature 98.2°.

The after-treatment differed in no way from that which I adopt after ovariectomy and similar operations, except that the stomach-feeding was only commenced on the afternoon of the second day—i. e., forty-eight hours after operation,—and was then one teaspoonful of ice-water and milk, equal parts, every half hour. The quantity was gradually increased till the afternoon of the next day, when she was able to take

two ounces every hour. On the sixth day three ounces were given every two hours. On the fourteenth day corn-flour was added to the diet, on the fifteenth day some crumbled bread, and then gradually an ordinary light diet. The mass weighed 30 oz.—*The Lancet*, Jan. 9, 1886.

Chadbourne on a Large Fæcal Abscess Pointing in the Popliteal Space and Resulting in a Spontaneous Closure of the Perforated Intestine.—A widow of fifty-eight was attacked with a severe pain in the right lumbar region which also extended through the right hip-joint.

The facial expression was anxious; the skin congested, with large beads of perspiration over the forehead; she vomited every thing taken into the stomach; she complained of a severe throbbing headache; the tongue was heavily furred; the temperature was 105.8° F., the pulse was 140, and the respiration was 70 a minute and very shallow. The abdomen was very tympanitic, and there was a marked induration over the cæcum and ascending colon, which was very tender upon slight pressure, and the thigh was flexed upon the abdomen. The bowels had not acted since the day preceding the beginning of the pain. The feet were cold.

These severe symptoms entirely disappeared after a free evacuation of the bowels two days later. This was followed by a period of two weeks, during which time nearly all of the symptoms were of a negative character, when suddenly it became evident that the contents of a fæcal abscess were burrowing down the thigh. The pus and fæces made their exit from the abdominal cavity under Poupart's ligament along the course of the anterior crural nerve, passing under the sartorius and rectus muscles, and, being directed by the inner surface of the vastus-externus muscle, pointed in the popliteal space.

No fluctuation could at any time be detected, on account of the thigh being so tensely swollen, until the abscess appeared under the knee, although the nature of the process going on within was expected, and the parts were frequently examined with much care. When the abscess was opened there was a free escape of fæces and flatus, which became more scanty gradually until it had entirely ceased at the end of eight days. One week afterward the bowels resumed their normal function, which they

have since continued to perform daily without interruption.

A peculiar idiosyncrasy of the system was met with in its perfect intolerance of iodoform, the patient being twice poisoned by that drug. The first time it was caused by applying eighty grains to the wounds in the thigh, and the second time by using only twenty grains. Each time the symptoms were all of the same character, and they quickly disappeared after the iodoform was removed to prevent further absorption.

Finally, the wounds had healed and she had fully recovered the use of the thigh, notwithstanding the extensive sloughing of the parts that had occurred, just three months from the time her disease began.—*N. Y. Med. Jour.*, Jan. 30, 1886.

Reclus on a Rare Form of Syphilitic Epididymitis.—A student of eighteen had a swelling of the testicle of four months' duration which was increased by walking and fatigue. The epididymis was matted together and surrounded the testicle. The patient was emaciated and weak and had night-sweats. Tuberculosis of the epididymis was diagnosticated and he was treated accordingly.

The disease progressed, a tumor appeared upon the tibia, and the tumor of the testicle ulcerated.

Iodide of potassium in doses of 80 gr. a day produced a speedy improvement, but a true fungus of the left testicle, formed on the base of the ulceration, which went to speedy cicatrization.—*Rev. de Thérap.*, 15th Jan., 1886.

Steinthal on Tubercular Disease of the Kidneys in its Relation with a Similar Affection of the Male Genito-Urinary Apparatus.—Steinthal, in *Virchow's Archiv.*, Bd. c., p. 81, has studied twenty-four cases of tuberculosis of the genito-urinary apparatus to decide the question whether tuberculosis attacks all the organs of the genito-urinal tract in a descending order from the kidneys downwards, or whether the process is reversed, or whether perhaps in the urinary tract the disease is descending, while in the genital tract it is ascending. The solution of this question is of the most vital importance for determining the value of castration in tuberculosis of the testicle and epididymis.

The result of this investigation is briefly as follows: Tuberculosis of the urinary apparatus commences generally in the kid-

neys and descends through the ureter, bladder, and urethra. The affection originates probably by means of decomposed urine. After tuberculosis of the urinary passages the disease often appears in the genital apparatus, generally in the prostate, seldom in the testicle and epididymis.

A tuberculous testicle is rarely associated with tuberculosis of the uro-genital apparatus, notwithstanding it spreads later in an ascending direction through the genito-urinary organs. Thus since tuberculosis of the testicle and uro-genital apparatus are seldom associated, castration removes the diseased and infectious foci from the body. Only before the operation a careful examination of the uro-genital apparatus (seminal vesicles, prostate) must be made and the urine examined for bacilli.—*Cent. für Chir.*, 9th Jan., 1886.

MEDICINE.

Ziemssen on the Neuralgia and Neuritis of Diabetes Mellitus.—The author has noticed that cases of diabetes are often accompanied by intractable neuralgias. There seems to be some etiological connection between the two conditions, as the intensity of the pain varies with the amount of the sugar secreted. On several different occasions in the last year, the author has accurately determined that these neuralgias were caused by a chronic neuritis. Two cases of diabetes mellitus had a severe neuralgia in the distribution of the left sciatic. In one of these cases there occurred a gangrenous ulcer of the great toe, which healed under anti-diabetic regimen and the internal administration of alkalies. In a third case, a woman of fifty had for two years a left ulnar neuritis, with atrophy of the muscles, supplied by that nerve, and an exquisitely atrophied shiny skin upon the little and ring finger. Later, the left side having improved, the same process attacked the right ulnar nerve in a milder form. The author attributes this condition to a species of poisoning by the sugar in the blood analogous to the neuritis of alcoholics. He cautions practitioners to never neglect an examination of the urine in a rebellious case of sciatic neuralgia.—*Cent. für Nervenheilkunde*, etc. (*Aerzt. Intelligenzbl.* No. 44, 1885), 15th Jan., 1886.

Bramwell on Locomotor Ataxy with Almost Entire Absence of

Lightning Pains.—A. B., aged thirty-five, an engineer, presented himself on December 18, 1885, suffering from well-marked locomotor ataxy. He stated that four years earlier he was laid up with very severe intermittent fever and dysentery, in India, and had to be invalided home. It was when recovering from this illness, that the difficulty in walking and regulating his movements were first noticed. He had had some pain in the back, not apparently of the lightning-like kind; but there had been no pains in the lower extremities. For the first three years after his return to this country his general health improved, but the difficulty in walking and balancing became worse. During the past year his walking had been distinctly better, and he had been able to follow his employment, superintending work in an engineering establishment on the Tyne. He went to work at 5 A.M., and returned at 6 P.M. He volunteered the statement that he had great difficulty in getting up a ladder. He said that he had not had syphilis. He had been married for ten years; he had lived freely in his youth. For the past year he had not taken any medicine. His condition when he attended was as follows. He was a spare man, of dark complexion; he could walk without a stick; but had a typical "locomotor gait," the legs being thrown out wildly, and the heels brought to the ground with a stamp, when walking; the eyes were not so steadily fixed on the ground and on the feet as is often the case in ataxic patients; when the eyes were closed, he was unable to balance himself in the erect position, even although the feet were placed wide apart; he said that if he bent his back and leant his head forward, he could stand more steadily, and this seemed to be the case when the eyes were open; he managed to walk backwards, though with great difficulty and with great apparent risk of falling. Co-ordination in the upper extremities did not appear to be impaired. Muscular power in the lower limbs was good. The knee-jerk could not be absent. Tactile sensibility in the lower extremities was impaired, and sensibility to pain quite destroyed; he said he felt as if he were standing on the point of a stick; formerly, when he was touched or pricked with a pin, it was a long time, he said quite half a minute, before he felt the sensation; but, at the time when the examination was made, there was no apparent delay in the

transmission of sensory impulses from the lower limbs; the prick of a pin was felt as an ordinary contact impression; it produced no pain, and the impression was imperfectly localized. Sensation was, he said, much better than it used to be. The pupils, which were of medium size, contracted to light, but in a sluggish manner; contraction on converging for near objects was active; the Argyll-Robertson condition of pupil was, therefore, present, but imperfectly developed. The optic discs seemed healthy. Urination was not affected; but the bowels were very troublesome; for several hours every morning he was frequently and repeatedly called to stool, often every quarter of an hour, but was unable to get a satisfactory motion; once the bowels were evacuated, he was easy for the rest of the day. Sexual desire and sexual power were very much impaired.—*Br. Med. Jour.*, Jan. 2, 1886.

Baumler on Paralysis of the Recurrent Nerve in Chronic Lung Diseases.—The author has studied three cases, in two of which he has ascertained by dissection that chronic diseases of the lung, with proliferation of connective tissue, particularly that caused by inhalation of dust, precede the affection of the left recurrent nerve. This takes the form of a chronic indurating neuritis, which arises either from a chronic bronchitis in the neighborhood of the nerves, or takes on a really independent form from the nutrient blood-vessels emerging from the inflammation. It is possible that the outbreak of neuritis is caused by a latent aortic aneurism, syphilis, or chronic alcoholism.—*Cent. für med. Wissen.*, 16th Jan., 1886. *Deutsches Arch. klin. Med.*, xxxvii.

Maere on the Cure of Obstinate Vomiting by the Stomach-Tube.—Dr. Maere has communicated to the Ghent Medical Society a case in which a young woman who had had some mental shock suffered from such extreme irritability of the stomach that nothing whatever could be retained. The bowels also absolutely refused to act. This obstinate constipation was overcome by faradism applied by means of an insulating sound with a metallic button introduced into the rectum. Nourishment was given by the bowel. At last, as the patient's condition appeared to be somewhat critical, Dr. Maere, after painting the pharynx with a one-per-cent solution of cocaine, introduced a Debove's

stomach-tube, and poured in a litre of milk and water in equal proportions. This was retained, and afterwards the patient was able to take and retain gradually increasing quantities of liquid nourishment. In a week she was convalescent. The author suggests that the girl's hysterical condition had caused the stomach to contract in the same way as the limbs sometimes do in these cases, and that when this was once forcibly overcome by feeding through the stomach-tube it did not recur. He remarks that painting the pharynx with cocaine is, as has been pointed out by Dr. De la Roche, much more effectual in facilitating the passage of the œsophageal tube than the application of bromide of potassium.—*The Lancet*, Jan. 16, 1886.

Mühe on Recovery from Traumatic Trismus and Tetanus.—A girl of twenty-one years caught her right hand in a threshing machine. An insignificant wound was inflicted upon the metacarpus and ring-finger, which quickly healed. Twelve days after the injury the patient caught a severe cold, and suffered with a pain in the back of the neck. The author gave salicylate of sodium and morphine in large doses, and also rubbed mercurial ointment into the neck. In twenty hours the patient could open her mouth and the spasm of the chest had disappeared. The wound was received the 26th of Nov., and complete recovery took place early in January.—*Cent. für Nervenheilkunde*, etc., 1st Jan., 1886 (*Aerztl. Intelligenzbl.*, No. 47, 1885).

Haven on the Etiology of Rachitis.—Although we can hardly accept Jenner's statement that "Rachitis is the most common, the most important, and, in its effects, the most fatal of the diseases affecting children," as holding true in this country, it is yet sufficiently common to make its prevention of great importance to the public health. It is, typically, a preventible disease—so far as serious results to the individual are concerned,—if proper treatment is instituted early enough. It might, probably, be absolutely prevented, if we knew the ultimate causes.

My purpose is to briefly present the statistics I have gathered as to the effect of the commonly accepted causes of rachitis on its production in this city.

During the past three years, at the West End Dispensary for Children, there were in attendance :

Total number under 7 years	1516
of rachitics	75
Percentage of rachitis	4.94
Total number of colored under 7 years	90
of rachitics	38
Percentage of colored rachitics	42.79
Total number of foreign ancestry under 7 years	340
of rachitics	20
Percentage of rachitics of foreign ancestry	5.88
Total number American ancestry under 7 years	114
of rachitics	4
Percentage of rachitics of American ancestry	3.50
Number of ancestry unknown	973
of rachitics	10

RACE.

Classifying the rachitics as to race, we find, of the number where it is known : Colored, 38 ; foreign, 20 ; American, 4. Of the 20 rachitics of foreign ancestry (provinces included), there were : Portuguese, 3 ; Italian, 2 ; Irish, 2 ; English, 2 ; French, 1 ; Nova Scotia, 2 ; Russian, 1 ; German, 1 ; of mixed parentage, both foreign, 4 ; of mixed parentage, father American, 2 ; of mixed parentage, mother American, 1.

FEEDING.

Breast alone till 3 months.	308.	11 rachitics or	Pr. ct. 3.57
" " " 6 "	295.	7 "	2.37
" " " 9 "	137.	10 "	7.29
" " " 12 "	200.	7 "	3.50
" " over 1 year	60.	3 "	5.00
Breast with other food till 3 months.	74.	5 "	6.75
" " " 6 "	43.	2 "	4.65
" " " 9 "	83.	3 "	3.60
" " " 12 "	477.	9 "	1.84
" " over 1 year.	381.	17 "	4.46
Artificial feeding only, 119.		13 "	10.85
Number where food not known,		286.	
and rachitic,	3.		

These figures need, of course, a further analysis to make them of much value, but they show, I think, very strongly, that other factors than food are, in this series of cases, the original or exciting causes of rickets.

Having noticed the frequency of rachitis among the colored in this series—and I have observed this in the attendance at other dispensaries,—let us analyze the feeding of the colored children to see if, so far as they are concerned, the dietetic factor is an important one. This was as follows :

Breast without other food till 3 mos.,	18.	7 rachitics, or	Pr. ct. 38.80
" " " 6 "	8.	3 "	37.50
" " " 9 "	5.	4 "	80.00
" " " 12 "	9.	4 "	44.44
Breast with other food till 3 mos.,	7.	1 rachitic, or	14.28
" " " 6 "	4.	1 "	25.00
" " " 9 "	3.	1 "	33.33
" " " 12 "	16.	8 rachitics, or	50.00
" " over 1 yr.,	27.	12 "	44.44
Artificial feeding only, 16.	6	"	37.50

I recognize the objection, that these statistics are too small to have great weight, but I cannot but think they are sufficiently numerous to show that at least the dietetic factor is not an important one in producing rickets in colored children in Boston ; the per cent. of all rachitics among all col-

ored is only a little less than the per cent. of colored rachitics in the artificially fed from birth. And in this series of cases, moreover, many colored children are not counted as rachitic where they only showed slight bone changes. Since December 1, 1884, about the time I began to carefully note any evidence of rickets, the total number in attendance under seven years has been 492 and 52 colored, or 11.5 per cent. Of the 52 colored, 25 only were non-rachitic, and 27 rachitic—51.9. This per cent. even is too small, however, I am very sure, as sometime, in the hurry of examination, I have neglected any record, as some of my charts remind me. The only question in regard to the dietetic factor, yet to be spoken of, is this : is the milk of colored mothers, otherwise healthy, as good an article of diet as the milk of the other races ? I have no reason to doubt it or affirm it, except that in many of the cases there is no evident failure of nutrition on the part of the child. I hope later to present some analysis of the milk of women nursing rachitic children.

Assuming, then, the preponderance of rachitis among the colored race in Boston, and granting the effect of the diet they receive not to be a marked one, at least, as I think we are justified in doing, the question arises as to what other cause may be acting, peculiar not to any racial dyscrasia, but resulting from racial or acquired character and habits : that is, are the quarters of the city in which they live more densely crowded ; are the tenements they inhabit more damp and cold or having less sunlight ; are their habits of caring for children, especially as to taking them out of doors, different from those of the equally destitute of other nationalities ? I can only give my opinion, that all these questions must be answered in the negative. I have no positive information, and hope I may obtain some from others. My experience has been, that the colored are more lavish in expenditure for food and rent than other poor, taken as a class, that in equal ways their table is better equipped and the food better cooked. As for the airing of the children, I do not see how they could be taken out less than the children of the Irish poor, until after they can walk ; after that time I have noticed no difference.

Another question must be considered. Are one or both of the parents less

healthy than the average white of same social condition? If they are, this may be considered as a causative influence, transmitted but not acting through direct heredity.

Of the 33 colored rachitics, whose family history is known, both parents *said* to be healthy in 21.

Mother healthy in 4 cases; father dead in 3; 1 Bright's; 1 phthisis; 1 rheumatism; in 1, father had cough every winter, well in summer.

Father healthy in 5; mother died in 1 of phthisis; "never strong" in 2; "married at 13" in 1; rheumatic in 1.

In 2 cases there was phthisis in father, and asthma and rheumatism respectively in mother; in 1, father had phthisis and mother died in confinement.

Of 31 rachitic white, whose family history was known, parents said to be healthy in 23.

Of the 8 remaining, in 3, father was healthy, mother had chorea, rheumatism and measles at birth of child respectively.

Mother healthy in 3; father had kidney disease, arsenical poisoning, and "not strong."

Father died of phthisis in 1, with mother not strong; father rheumatic in 1, and mother healthy excepting catarrh which had destroyed septum, specific.

No history of syphilis in any, nor have I seen any rachitic symptoms in a number of confessedly syphilitic children.

In this comparison we see not much difference, but of course the statements of the parents are of comparatively little value; I think, undoubtedly, in this climate the average of health is less in the negro than the white native or immigrant from the north of Europe. How much lower, if any, it is, than that of the immigrant from France or Italy, I have on means of forming an intelligent opinion.

In any case I do not believe there is enough difference to account for the marked preponderance of rickets on the ground of the parent's health, though it may, and undoubtedly does, exert an influence.

What then is the determining cause of this frequency? I see no source of any such cause but what must arise from a peculiar predisposition to this form of disease in the colored. Is this to be referred to any anatomical basis, as for instance,

are the arteries of this race larger or wider? I know of no such peculiarity. And again, if the statements made to me by lay observers are true, that the disease is the less common the farther South we go, that would preclude any such hypothesis being entertained. I can find no medical testimony as to its relative frequency. It is stated, however, to be practically unknown in tropical regions. In the writings on African explorations, I have met no notice of such a disease having been noticed among the young, as it would probably have been had it existed. Again, I have been told by lay observers, that the disease is the more frequent and severe, the purer is the African blood, and I have found this to be true in my experience in this city.

The only hypothesis I can suggest to myself to account for the relative frequency of rachitics in the colored race is that as their natural habitation is much farther south than North America, the effect of the climatic conditions, which are recognized as having a causative effect in rachitics, is exaggerated; the purer the African blood the more will the effect be noticed. In other words, there is an inherited necessity for heat and sun which our climate does not satisfy, and rickets results. It is striking in this connection to notice of the white rachitics of a foreign ancestry, the majority are born of parents coming from the south of Europe, where the disease is relatively rare, rather than of parents from England and North Germany, where the disease is rife.—*Bost. Med. and Surg. Jour.*, Jan. 14, 1886.

Renou on the Antiseptic Treatment of Diphtheria and Croup.—The author places his patients in a well-aired chamber, not too large, heated to between 68° and 75°. He then vaporizes, in a very simple way, by means of one or two oil stoves, an antiseptic solution, of which the following is the formula:

Carbolic acid	.	.	280 parts.
Salicylic acid	.	.	56 "
Benzoic acid	.	.	112 "
Rectified acetic acid	.	.	468 "

which makes a litre of a clear solution. A teaspoonful of this solution is every three hours put into two litres of water boiling upon the stove. On an average about 64 grammes are vaporized in 24 hours.—*Gas. Med. de Strasbourg*, Jan. 1, 1886.

PATHOLOGY.

Gayet on Tumors of Both Orbits.—

A man of 70 entered the hospital for an acute pleurisy, of which he died in two days. He had had a tumor in the right orbit for two years, and a larger one in the left orbit four months. The tumor of the right side, according to the patient, varied in size at different times. The eyes were crowded downwards and outwards. Vision was fair. There was no ganglionic enlargement. Examination of the specimens showed the two tumors to be symmetrically situated in each orbit, and of a uniformly sarcomatous aspect, with no trace of suppuration or degeneration. Each tumor extended from the trunk of the optic nerve to the capsule of Ténon, from the periosteum, to which it was slightly adherent, to the globe of the eye. In a transverse section it resembled a sort of disc, occupying the upper part of the orbit and covering the upper internal segment of the eyeball. The neoplasm was developed in the cellular tissue of the orbit and mingled with the muscles and nerves, which were invaded by their cellular septa. A microscopic examination proved the tumors to be lymphadenomata.—*Lyon Medical*, Jan. 17, 1886.

Clutton on a Case of Large Cervical Spina Bifida Undergoing Spontaneous Cure.—The subject was a younger brother of a patient in whom he had successfully treated a lumbar spina bifida by the glycerio-iodine injection, and the particulars of which were reported to the society in 1862. Both cases were shown as living specimens last November. The mother had had ten children, of which the ninth and tenth were affected as above mentioned. The latter was born in 1885, with a spina bifida in the cervical region of the spine, of which the size and position were demonstrated by means of a photograph. It was six and a half inches in diameter, and rather coneiform in shape, with the apex directed upwards. The coverings were thin, but completely enveloped with skin. It could be reduced in size by pressure, but increased again when the child cried. A considerable aperture could be felt in the vertebral arches. It was thought to be a simple running spina bifida, from the fact that there was a perfect cutaneous covering without any ulceration, median furrow, or central depression, that it was translucent in every part of its surface, and

that there were no paralytic symptoms. When five weeks old the cyst was found to be much smaller, and its coverings quite soft and flaccid. No treatment of any kind had been adopted, and yet the communication with the interior of the vertebral canal had become occluded. From that time till December it diminished in size, when the child died from causes unconnected with the spina bifida.—*The Lancet*, Jan. 16, 1886.

Murray on Raynaud's Disease.—A boy, aged three, had been fairly healthy all his life. Mr. Murray had operated on him for club-foot some months before the attack. The last division of tendon took place on December 29, 1884, after which the leg was put in irons. He remained in good health until March 4, 1885, when, in the afternoon, he began to scratch the left knee and thigh. Shortly afterwards he began to cry, and said his leg was sore. His mother then took off the instrument and boot, and noticed a slight discoloration on the upper and inner part of the knee, not as large as a sixpence. It quickly extended down as far as to where the padding of the splint had reached. About 7 P.M., an angry red line was noticed round the discoloration. Next morning the patch was much larger and darker. On the evening of March 5th, the discoloration extended from about three inches above the knee to about two inches below it on the inner and under surface of the joint. No other part was affected. The child was suffering great pain in the diseased part, and also complained of pain in the extremities. The pulse was extremely rapid and irregular. The breathing was very quick. The temperature was below the normal. The surface of the body was palpably cold. In the course of an hour both feet had become black and much swollen. In about an hour more the hands and arms had assumed a dusky hue, and were much swollen. On the morning of March 6th another discolored patch appeared on the back of the left thigh; and, towards the afternoon, another came on the left cheek. By this time the feet and hands were quite gangrenous; all pain left the child about 10 o'clock, and he died at 10:30 P.M. The urine appeared normal. The disease spread so rapidly in the arms that the progress could actually be watched.—*Brit. Med. Jour.*, Jan. 9, 1886.

Sutton on the Injuries and Diseases of Joints in Animals.—Mr. Sutton has

brought together a large number of observations of the very greatest interest to the surgeon; and one illustration deserves particular mention, from its curious suggestiveness in relation to a form of joint affection which even now can claim no better or more distinctive name than "Charcot's Disease." The "patient" mentioned by Mr. Bland was a two-year-old horse, which, after separation of the epiphysial head of the femur, had for some months continued to walk without obvious deformity, though when trotting it perceptibly limped. *Post mortem*, movement was found to have taken place between the neck of the bone and the epiphysis, and the latter had become quite porcellaneous in appearance.

Dislocations, according to Mr. Sutton, are extremely rare in animals, and he was justly proud of his ability to present to examination of the Society a specimen of an un-reduced dislocation of the hip-joint, taken from a cat. Every other joint disease, however, except gout, as they are known in man, is, he affirms, represented among animals,—*The Medical Press*, Jan. 13, 1886.

Aubert on the Different Elements of the Urine.—The author, as reported by Lépine, has produced experimentally functional lesions of the kidney. He places a clamp upon the renal artery or upon the urethra for several hours. He then introduces the canula into each ureter in the neighborhood of the bladder, and collects and compares the composition of the urine from the disease with that of the healthy side. In a dog, after three hours, he collected 35 cc. on the healthy side, and 22. cc. on the opposite side. In 1,000 parts he found that there was a solid residue of 81.4 on the healthy side, and 38 parts on the diseased side. Of organic ingredients there were 62.8 on the healthy side, and 31 parts on the diseased side. Of salts there were 18 parts on the healthy side, and 7 on the diseased side. Of chloride of sodium the healthy side contained 2 parts, the diseased side 1.3 parts. Thus the urine is more concentrated on the healthy side. The phosphates are not so abundantly excreted, while the chloride of sodium is more abundantly excreted on the diseased side. He found a slight albuminuria on the healthy side.—*Gaz. des Hôp.*, Jan. 12, 1886.

Morton on Diphtheritic Casts from the Ureter.—On the 5th of November

last, a lad, fourteen years of age, was admitted into the Pennsylvania Hospital with violent cystitis and symptoms of stone. At the age of four years he had been operated on for stone, in Ireland, and a good-sized calculus removed. Since then, and until six months ago, he had remained well. He then experienced pain in the bladder, urethra, and at the end of the penis, and had frequent stoppage of urine, which was due to plugs of dense matter, which lodged in the urethra or meatus, and he said that he experienced great difficulty in forcing them out, after which the flow of urine would be free.

On admission he was very pale, feeble, and in constant suffering. The bladder was examined, and no foreign body was detected. He was given anodynes, placed upon the milk diet, and the bladder was washed out daily. The urine contained albumen, pus, and the fragments of membrane, which were constantly discharged or extracted from the urethra, and appeared to be tubes from which a longitudinal strip had been removed. A week after the first examination, the symptoms continuing, he was again etherized and the bladder examined, and, although no stone was detected, I decided to perform cystotomy. At the time of operation one of the plugs of membrane blocked up the meatus, and required some efforts with a forceps to remove it. In the bladder I found about two tablespoonfuls of false membrane in a mass made up in part of incomplete tubes; and as this was adjacent to the right ureter, and as the patient had had some symptoms of discomfort in this and the kidney region, it seemed possible that these tubes were thrown off from the ureter on this side.

In the meshes of the mass of membrane removed, there was a considerable deposit of calcareous matter, and numerous fragments of stone, weighing probably four or six grains. The mass had likely been accumulating for a long time.

The bladder-wound has been kept open by a large silver tube, and injections used daily. The presence of the membrane has almost ceased, and little or no suffering is experienced. There were no symptoms, it appears, such as seen in diphtheria at any time in the course of his illness, although there was a hectic condition when the patient was first received.—*Phila. Med. Times*, Jan. 23, 1886.

Clark on a Case of Acute Prostatitis, with Discharge of Hyaline Cylinders Resembling Renal Cylinders.—A middle-aged man, in average health, was suddenly seized with pains in the limbs and loins; there was frequent desire to pass urine, and scalding when it passed, with pain at the anterior extremity of the urethra. The urine rapidly became bloody, accompanied by much dysuria and tenesmus. No evidence of disease, other than that in connection with the urinary organs, could be discovered. The urine, examined by the naked eye immediately after its discharge, exhibited numerous minute thread-like fragments. Under the microscope, they were seen to consist of hyaline cylinders, in several instances covered by patches of leucocytes. On standing, the urine deposited a mixed sediment in a thin even layer. The specific gravity of the urine was 1022, its reaction acid, and it was slightly albuminous. The sediment contained uric-acid crystals, oxalate of lime, blood-discs, patches of epithelium from the bladder, leucocytes, flask-shaped hyaline bodies, and hyaline cylinders. The crystalline constituents appeared to have been formed in the urine subsequent to its discharge. On examination *per rectum*, the prostate was found to be much enlarged, and very tender to the touch. The patient was soon afterwards seen by Sir James Paget, and the symptoms of the local disorder had become aggravated. By degrees the uric acid, oxalate of lime, and larger hyaline casts disappeared from the urine. A small quantity of albumen, however, remained, and on standing, the sediment showed much mucus, and small hyaline cylinders with flask-shaped hyaline bodies. After eight days' illness, at the close of micturition there was discharged a pultaceous mass of mixed mucus and phosphates, and this discharge continued for nearly a fortnight in steadily diminishing quantities. The patient entirely recovered after being ill a little more than a month. During the last six years, the only symptoms that had arisen had been such as he himself ascribed to imperfectly developed gout. The important point in these cases was the discharge through the urine of hyaline moulds of the vesicles and smaller ducts of the prostate. Before finding the connection between the cylinders and the flask-shaped bodies, Clark was inclined to think the

latter originated in the kidney; but further study of the case, and two others similar to it, and examination of the prostate after death, had convinced him of their prostatic origin. These cases with prostate casts in the urine might be only curiosities of medical experience, but in none of the standard works on urinary affections, nor in any monographs dealing with diseases of the prostate, could any reference be found to the discharge of hyaline cylinders in prostatitis, and without careful examination they might very easily be mistaken for cylinders originating in the kidney.—*Br. Med. Jour.*, Jan. 16, 1886.

Phillips on a Case of Unusual Malposition of the Viscera in a New-Born Child.—On the 29th of last May I was requested to perform a post-mortem examination on a child which had died twenty minutes after birth, without apparent cause. The arrangement of the viscera was of such a peculiar nature that it appeared to me worthy of record.

The child in question was the third. None of the others had any malformation and were quite healthy; neither was there any family history of deformity on either side discoverable.

The mother experienced a fright two days before the labor commenced, but it was normal in every way, and the child was born at full time. After delivery it gave a few feeble cries, and by dint of artificial respiration was kept in a semi-moribund condition for twenty minutes.

Post-mortem Examination.—The body was that of a full-term, well-formed female child, weighing seven pounds. The abdomen was very flattened, but no malformation could be discovered externally. The whole of the space usually occupied by the left lung, the heart, and large vessels was filled with intestines; the upper third consisting of large bowel, stained of a greenish-brown hue, the lower two thirds being made up superficially of coils of small intestines of a pinkish white color.

The right side contained at the apex, the thymus gland; below that, the heart and large vessels covered by the pericardium. To the right of these latter and slightly below was the right lung, trilobed, but in a condition of almost complete atelectasis.

On raising the intestines on the left side, the stomach came into view, resting on the

convex surface of the diaphragm, with one or two coil of large intestine of olive-green color covering its pyloric end. At its cardiac end was the spleen, and behind and below, the left lobe of the liver could be seen passing through a large congenital deficiency in the posterior part of the left side of the diaphragm. The opening was oval, being three and a half inches in breadth and an inch in its antero-posterior diameter. The edge was quite smooth, the serous surfaces being continuous.

Towards the median line of the thorax, and attached by some fibrous tissue to the vertebral column on the left side, was a small bilobed brownish-yellow mass, which proved on examination to be undistended left lung. On removing the pericardium, the ductus arteriosus was found patent, the right pulmonary artery could be traced into the right lung, but a fibrous band represented that going to the left lung.

The brain was normal. The abdominal cavity was occupied by the liver, the remainder of the large and small intestines, and the bladder.—*Arch. of Pediatrics*, Jan., 1886.

Neumann on Syphilis Acquired after Conception.—Whether a child can be infected when the mother acquires syphilis early in pregnancy is still an undecided question in syphilology. Neumann has investigated twenty cases in which syphilis was contracted after conception, and found that five children became infected, while fifteen remained healthy; and in the first instance the infection of the mother occurred once in the third, seventh, and eighth months, and twice in the fourth month of pregnancy. The author concludes that the child may escape syphilis acquired during pregnancy and may remain exempt from it, but occasionally a syphilitic mother bears a child which she afterward infects.—*Cent. für klin. Med.*, Dec. 26, 1885 (*Weiner med. Presse*, 1885, No. 29).

Maddox on the Results of Feeding Insects with the Comma Bacillus.—In a communication which appears in the current number of the *Journal of the Royal Microscopical Society*, the author proffers the results of his experiments and observations on feeding insects with the comma bacillus and whereby he has arrived at the conclusion that this form of bacillus, taken from cultures carefully prepared, will pass in a living state through the digestive and intestinal tracts of flies, and in this way

may possibly become carriers of contagion. It will be in the recollection of our readers that Dr. Grassi, of Rovellasca, two years ago, broached this subject. He made experiments on flies which pointed to the conclusion that these insects at least may be considered as veritable promoters of epidemics, or agents of infectious maladies. To prove this he placed on a plate in his laboratory ova of the trichocephalus, and in a short time these were removed by the flies and deposited in another place some little distance away. He captured some of the flies, and discovered their digestive tubes full of masses of feculent matter, and abounding in ova. He further experimented by putting segments of tape-worms, *tænia solium*, that had been for some time preserved in alcohol, into water; some of the ova remained suspended, the flies drank of the fluid, and in less than an hour he found the ova in the intestines as well as in their dejections. Flies, he found, will also transmit the ova of the small thread-worm oxyuris. He therefore supposed that, as the buccal passages of flies permit of the transit of large bodies, they could the more easily transmit the schizomycetes. To prove this, he fed flies on mildewed cream, and subsequently found the *oidium lactis* within them, while other flies fed on the muscardine of the silkworm, passed spores in their dejections, as in other cases were spores of the botrytis. From these conclusions Dr. Grassi believed it would be unsafe to suppose that ingestion caused the death of the organism, for it does not suffice to kill the germs of mildews and schizomycetes. Flies are also certain to carry about living organisms by their feet and proboscis. It is, however, difficult to adduce positive proof of this, owing to numerous causes of error; but as he contends the agency of the earth, air, and water does not fully account for the diffusion of contagious and infectious disease, he proposed that flies should, as far as possible, be exterminated by giving them the malady in the spring, of which they often die in the autumn. M. Davaine found by feeding flies with injected blood they could be made to convey infection; while Dr. Manson has shown that mosquitoes are carriers of the ova of the *filaria sanguinis hominis*, and that it is quite possible for the dreadful tsetse fly of Central Africa to transmit infection to the animals it attacks.

Following up these experiments, Dr. Maddox placed a number of flies in confinement, and fed them on the comma bacillus; twenty-four hours afterwards he examined their dejections and found numerous pollen-grains, bacteria, small, straight, non-mobile rods, and micrococci, but no curved rods. After many experiments, a male fly, fed on sugar moistened with an agar-agar culture, furnished a large number of curved bacilli and numerous micrococci. The results of very many diversified experiments were at length conclusive "that the comma bacillus from cultures can pass through the digestive tube of insects in a living state," and although he omitted to check his results by inoculating a gelatine tube from the patches of bacillus found on the glass slides, in the so-called plate culture, nevertheless "the organisms were distinct and characteristic of the comma bacillus, and quite sufficient to establish identity." Furthermore, these experiments were conclusive "that the curved bacillus can retain life in the intestine of a fly," and this fact lends support to the statements of the investigators above quoted, that flies may become a serious source of injury to animals.—*Med. Press and Circ.*, Jan. 13, 1886.

Billings on the Preparation of Hydrophobia Virus.—Pasteur's studies upon rabies began in the fall of 1882. The first human being to be inoculated was the boy Joseph Meister, on the 7th of July, 1885.

I do not know that it would not be possible to have brought home some of Pasteur's material; it certainly could have been done by the aid of rabbits on board the ship, but I did not ask for it for just one reason, and that is, that I do not consider either myself or any other person would be justified in trying to inoculate his own species, before he had himself gone through the entire work by which Pasteur has arrived at his present confidence, and by similar and repeated experiments upon dogs, have become as well acquainted with the action of his own material as Pasteur is with his.

It is well known that the saliva of the dog has always been looked upon as the essential medium of infection. It is equally well known to every practical bacteriologist, that no more difficult substance could be taken from which to isolate a specific microbe than this saliva, especially, as is prob-

ably the case, if this microbe be a coccus. From his observations of clinical phenomena, Pasteur concludes that the specific elements of rabies are to be found in a pure condition in the material of the great nervous centres—brain and spinal cord—more easily than elsewhere. Experience has proven the correctness of this conclusion, but it still seems doubtful if we shall not also find the same elements in an equally pure condition in the large salivary glands, on the side and under the jaws, as in the brain. The very fact that this saliva is the usual medium of communication of the disease to other animals indicates this.

I have been told that for his cultivation of the microbe, which he claims to be specific, Fol used the fluid he could squeeze out from the fresh brains of sheep. To my mind, the best and most natural way to obtain a medium for the cultivation of the specific microbe in this case, if one thought he had found it, would be to dissect out the parotid duct on each side of the jaw of a large dog, and have its secretion received in appropriate vessels. I would also use cattle for the same purpose. This material can be sterilized in its natural condition, and also made into a solid medium by the use of gelatine.

However, Pasteur has found the brain-substance to answer every practical purpose; from it he prepares an artificial virus, without any direct knowledge of the existence of a specific bacterium, as is the case in the vaccine we obtain from calves. Looking upon the brain as the chief seat of this material, it was but natural, that he should also select that organ as the point of inoculation for his future experiments. The supposition proved correct. Every dog thus inoculated from the brain of another rabid dog died in an average period of fourteen days. This fact established, the next step was to find a means of mitigating this material, and a method of using it as a preventive medium.

Not having isolated any specific bacterium, it is evident that the means used in the preparation of the anthrax virus would not be available. Hog cholera had, however, given another indication, which, if followed, might lead to valuable results—*i. e.*, the fluid element of that disease, taken directly from a sick hog, one that had been dead but a short time, if carried through rabbits, loses its virulence, but increased in the same when carried through

pigeons. It was but natural that Pasteur should desire to try this cerebral extract upon monkeys, as next in kin to man. We can well imagine his astonishment at finding that even the most rabid virus caused no serious disturbance, and that if the inoculations were made through a very short series of monkeys, the virus becomes powerless, even upon dogs. Now here he sat upon the apex of a most difficult horn of dilemma. Here was, indeed, a means of preparing a primary rabid vaccine, but where on earth were the monkeys to come from?

This method, self-evidently, had to be given up. Had he only had the microbe isolated and cultivated, and produced this monkey rabies with it, he would have found his preventive virus much sooner than he did.

The monkey not being available, it was but natural that he should turn to that invariable object of vicarious experimental sacrifice, the rabbit. Here he was again struck by a very singular phenomenon. After experimenting for some two years, and using about 2,000 rabbits, he satisfies himself that if one inoculates a primary rabbit in the brain with similar substances from a rabid dog, that that first rabbit becomes rabid in just the same time a dog would if treated in a similar manner; the next thing was to discover what would be the result of carrying such a material from rabbit to rabbit in the same manner as had been done with monkeys. This being done with innumerable series of rabbits, it was found that after thus inoculating from twenty to twenty-five rabbits, the rabid material had so degenerated in virulence that it killed each rabbit in seven days. This same material acted in the same manner when inoculated upon dogs. Hence Pasteur could almost have claimed to have produced a new disease out of an old one. Now comes the question, How can this material be diminished in virulence?

The brain-substance could not be handled very well, so that the next step was to try the spinal cord, the most accessible portion being the medulla oblongata. This was found to act exactly as the cerebral substance had done. The next step was to try the effects of heat and cold upon it in a dry atmosphere; the microbes, if present, must thus be deprived of one of the chief essentials to their existence. The

dry air was easily found by placing lumps of desiccated caustic potash in the bottom of glass jars. The corks were made to fit very neatly, and were of the best quality. The medullas were then removed with the utmost care to avoid pollution with any foreign material, and hung by a thread attached to corks in the jars.

The following results ensued: When kept in a cool place, the medullas retained their virulence a long time, which could be increased by filling the glass jars with carbonic acid gas. If, on the contrary, they were kept in a room with a constant temperature of 20° C., it was found that they lost in virulence with each day's action of the dry atmosphere and the surrounding heat, until after, or on, the expiration of fourteen days, a medulla was found which produced no perceptible action upon rabbits or dogs when introduced into the brain.

It was now necessary to discover if each one of these medullæ possessed any constancy of action according to the time they had been thus treated. One can hardly realize the amount of work that had to be done, and of the inoculations that were made before this fact could be considered as established. Finally, it again resulted as in other vaccines under methods of treatment: *that any number of medullæ of approximately the same thickness had the same action upon animals, if introduced into the brain, after having had the same amount of exposure—i. e., a canine medulla would cause rabies in a rabbit in 14 days; a super-virulent rabbit medulla would cause rabies in a rabbit in 7 days; after the latter had been taken out and subjected to treatment for about two weeks, all action disappeared. A slight action followed the use of one of 12 days, more of one of 10, and so on more and more until one of 1, 3, 4, or 5 became more and more virulent.*

It must be borne in mind that these results were all obtained by inoculating a single animal from a given cord of a certain number of days' treatment.

The next thing to do was to try the effect of the serial introduction each day, or at intervals of a day or two, of a series of three separately treated medullæ from rabbits, beginning with a cord that had been treated for 14 days, and ending with one freshly removed from a rabid animal.

Then came the revelation before the Academy; the doubts and sneers; the ap-

pointing of a committee to watch and prove; the treatment of twenty-five dogs as a test case; the control experiment with twenty-five others that had not been treated to the bites of rabid dogs; the anxious waiting for time to elapse. Then followed experiment after experiment until all was as safe as the simplest injection of a harmless material, and then came the tests.

It will be seen from the following statement that the child was daily inoculated with a piece of spinal cord from a rabbit of ever-increasing virulence. The cords were subjected to the action of a dry atmosphere a shorter and shorter period after their removal from the rabbit, until finally a cord comparatively fresh—that is, only one day old—was used.

The boy Joseph Meister. The inoculation began on the 7th of July, as follows:

Date.	Time of inoculation.	Date upon which rabbit was inoculated from which the spinal cord was taken.	No. of days the cord was dried after removal.
July 7	9 A.M.	June 23, 1885	14
" 7	6 P.M.	" 25, "	12
" 8	9 A.M.	" 27, "	11
" 8	6 P.M.	" 29, "	9
" 9	11 A.M.	July 1, "	8
" 10	11 "	" 3, "	6
" 11	11 "	" 5, "	7
" 12	11 "	" 7, "	5
" 13	11 "	" 9, "	4
" 14	11 "	" 11, "	3
" 15	11 "	" 13, "	2
" 16	11 "	" 15, "	1

The method of inoculating rabbits is simply that of ordinary trephining, the instrument being smaller and having the diameter of an ordinary lead-pencil.

The fresh medulla is rubbed off with bouillon, as later described, and about two divisions of the piston of an ordinary hypodermatic syringe of fluid injected under the meninges; the end of the needle must be curved. The skin is then sutured as in any other case.

At the same time the child was inoculated, another rabbit was immediately afterwards inoculated with exactly the same material used on the child. This is done with the virus used on every person inoculated by M. Pasteur in order to keep the experiments under the most exact control. The result is thus reported by M. Pasteur:

The medullas or cords which were removed from rabbits and inoculated on the child July 11, 12, 14, 15, and 16 respectively—that is, which had been desiccated

seven, five, four, three, two, and one day—all gave positive results when re-inoculated upon rabbits in a degree corresponding to the time they had been dried—*i. e.*, the freshest cords caused the appearance of rabies in the rabbits in seven and eight days, while the others gave results later, and the driest gave none.

The fresh cords having therefore caused the outbreak of rabies in the regular time, which the most virulent cords from rabbits had previously done, and the same not having caused any disturbance whatever to appear in the boy Joseph Meister, Pasteur concludes "that the boy has not only escaped a future outbreak of canine rabies, but also that the systematic inoculation has so prepared the elements of his body that they were enabled to resist the action of still more virulent rabbit rabies.

This virus from each of the cords is made by taking a small piece about one-fourth of an inch in length, and rubbing it up with a glass rod and adding sterilized bouillon, drop by drop, until the fluid and mass are well mixed, and about a tablespoonful of bouillon added. It is not filtered, and some of the substance necessarily settles to the bottom of the glass as a sediment.

The virus is made fresh every day, the glasses containing it being prepared about 10 A.M., the inoculation occurring about 11 A.M. While waiting, the glasses are carefully covered so as to prevent any thing falling into them from the air. As no cord is used a second time (that is, as a cord which if used to-day would be one that had dried six days, but which if put back again into the bottle would be a seven-day cord, and so on), it is evident that a number of rabbits must be inoculated daily in order to keep up the supply of very virulent cords, according to the number of patients present, and also according to the period of their treatment.—*Phil. Med. News*, Jan. 23, 1886.

Lendenfeld on Amœbæ Infesting Sheep.—Sheep in certain country districts are liable to a disease somewhat resembling epithelial cancer. It is produced by an amœba, which affects the hoofs, lips, and nostrils of sheep and lambs. The epithelium grows with great rapidity, the wool drops off in the parts attacked, and a festering sore is established. In studying the surroundings of the flocks so affected, and by a process of artificial breeding in an

aquarium, he found that the disease is due to an amoeba (*a. parasitica*) which enters into wounds made by the spines of the variegated thistle. The plant, it appears, grows in profusion about the feeding grounds. The amoeba, having gained an entrance through a wound, multiplies very rapidly between the epithelial and horny layers of the hoof. This disease appears to ourselves very closely to resemble the fungus-foot disease among the natives of the Madura district of India.—*Med. Press and Circ.*, Jan. 13, 1886.

THERAPEUTICS.

Bockhart on Mercurialized Blood Serum—A New Preparation in the Treatment of Syphilis.—The author, in the *Monats. f. prakt. Dermat.*, 1885, No. 5, having in view the fact that mercury combines quickly with albuminous bodies, has made with sterilized blood serum a one-and-a-half-per-cent solution of mercury, and with it subcutaneously has treated twenty-three cases of syphilis, injecting from .01 to .03 at a time. The symptoms quickly disappear. It has no unpleasant local effects.—*Cent. für. Chir.*, 16th Jan., 1886.

Kopp on the Treatment of Syphilis with Subcutaneous Injections of Hydrargyrum Formamidatum (Liebreich).—In *Vierteljahrs. f. Dermat. u. Syph.*, 1885, xii., pp. 55 and 183, the author narrates the results of the above method of treatment in 126 cases, in which over 3,000 injections were given. The injections were mostly made in the nates; there was always injected .01, in one case .02, in a case of iritis .03 daily. The injections were less painful than those of sublimate. This treatment was satisfactory in mild cases, but in severe cases it was necessary to resume inunctions. In the tertiary cases it failed. Relapse was never prevented.—*Cent. für. Chir.*, 16th Jan., 1886.

Gouguenheim on Injections of Sublimate into Pulmonary Cavities.—The author commenced by determining upon the cadaver the best mode of operating; he convinced himself that through the first and second intercostal spaces in front, a hypodermic needle easily penetrated cavities; that the same could be effected in the axillary line and beneath the angle of the scapula. In front he kept

away from the sternal border to avoid important vessels and nerves, also shunned the first intercostal space in order to avoid the subclavian artery.

Upon the patient injections should be made slowly to avoid cough and hemoptysis; the liquid should be at the temperature of the body. The injections should be continued for a long time. The author has to certain patients given daily injections for a month, and the autopsy has revealed no lesion referable to the injections themselves.

The author has employed three solutions, 1:1000, 1:100, 1:100. The strongest solution was used with patients whose pulmonary lesions were most serious. The 1:100 solution was most frequently used; he never injected more than a syringeful at a time, $\frac{1}{2}$, 2, or 3 milligrammes of sublimate at a sitting. The hypodermic needles are soon rendered useless by the injections.

Pain is ordinarily absent, or at least endurable. Cough is sometimes violent, hemoptysis exceptional and transitory.

The author has noticed generally a very marked improvement in the auscultatory signs, and the expectoration has often diminished. The general condition of the patients has been but little influenced by the injections. He has given injections in thirty-three cases. In twenty-one cases the results have been decidedly favorable.—*Union Médicale*, 14th Jan., 1886.

Bartlett on the Toxic Properties of Sassafras.—Sassafras was discovered in Florida by the Spaniards and named by the French in 1562. It was used by them in association with other native herbs as a remedy for malarial diseases. Though occasionally prescribed in combination in rheumatism and syphilis, and regarded as possessing diuretic, diaphoretic, and tonic properties, it has fallen into disuse.

More than twenty years ago Dr. Thomas, of Tennessee, stated that sassafras was an antidote to henbane and tobacco; and later, in 1870, Dr. Lyle, of Indiana, declared that he had used the oil of sassafras in a case of stramonium poisoning with the happiest results. Dr. Lyle affirmed that sassafras had power to destroy all insect life, and was an effectual antidote to the venom of the copperhead snake. In 1883 we find that Dr. Hinton claimed that sassafras tea was almost a specific for the rash produced by poison oak. Recently paragraphs have appeared in the medical

journals, in which it is stated that sassafras is not the innocent agent that it has been supposed to be, but that in reality it has violent toxic properties. This statement is made upon the authority of Dr. Charles L. Hill, from whose paper read before the 86th session of the Medical and Chirurgical Faculty of the State of Maryland, in April, 1884, the following report is extracted :

"A case of poisoning by the oil of sassafras, that once came within my knowledge, proved that it possesses far more active properties than is generally supposed, and I have been able to demonstrate by experiment on the lower animals that instead of being a harmless, inert drug, it is a strong nervous sedative, anodyne, and soporific, and in over-doses, a dangerous narcotic poison. A policeman, attracted by the sound of a falling window and other suspicious noises proceeding from a gentleman's office, entered the room to ascertain the cause. He found no one present but a boy, who was lying unconscious on the floor. He took him at once to the station-house, where I saw him shortly afterward. The officers had already diagnosed his case as one of opium-poisoning, and were vigorously striving to keep him awake by walking, flogging, and such other means as are usually resorted to in these emergencies. His stupor was profound and he no longer made an attempt to walk, but was literally dragged about in their efforts to revive him. He spoke occasionally, but only to beg them to allow him to sleep. He was in a condition of great relaxation ; skin covered with a profuse perspiration ; countenance pallid ; pulse rapid, but weak and thready. His pupils were *normal*, and there was a strong odor of sassafras in his breath. As quickly as possible an emetic was administered, which produced a copious emesis, redolent with the odor of sassafras, with drops of the undissolved oil floating in the liquid. This was followed by free draughts of warm water, until only a faint odor of sassafras was discoverable. The vomiting relieved him and he was soon restored to consciousness. He felt no discomfort except a sense of weakness and exhaustion, and was soon able to give the following account of himself : His employer having gone home, he was preparing to close up the office, when he espied a bottle of the oil of sassafras which had been left on the desk. Remembering that sassafras had been rec-

ommended for the removal of an eruption that disfigured his face, he thought this a good opportunity for giving it a trial, and turning up the bottle—to use his own language—he took two large swallows of its contents. In a few minutes he began to feel very *stiff*, as he expressed it, but proceeded to close up the shutters preparatory to leaving for home. He raised the window for this purpose, but had not strength to hold it in this position, and it dropped from his grasp, and at the same time he fell to the floor unconscious. This suggestive case led me to make numerous experiments on the lower animals with very interesting results. Ten drops of the oil were injected hypodermically under the skin of a mouse. The animal quickly succumbed and died convulsed. By repeated experiments I was able so to regulate the dose as to get the characteristic effects of the drug without causing the speedy death of the mouse. A glass rod was dipped into the oil and held in front of the mouse, and he seized it with his mouth. This was repeated at intervals of a few minutes, until a sufficient quantity was taken to produce the desired effect. The first symptom observed when a small quantity was thus taken, was a slight convulsive movement, which was repeated at intervals of a few seconds, and agitated the animal's body very much like a severe hiccough. This gradually increased in severity, the movements became more unsteady, the body more arched, and the limbs so stiff that the mouse stood on tiptoe. It was noted that the one idea of escaping from the trap still predominated over all else, as he continued to climb up on the bars of the cage, only to fall on his side or back at each convulsion, until no longer able to rise.

"I have repeated these experiments many times with great uniformity of result. Sometimes they would dance about for half an hour, with a peculiar convulsive movement that would jerk the head and front feet from the table. Again they would fall on their side with each convulsion and regain their feet immediately, only to repeat the same movement. With cats and dogs the result was somewhat different. A drachm under the skin of a cat caused such profound insensibility that she was supposed to be dead, and thrown away, but it seems that only one of the reputed nine lives of the animal had been reached, as the next day she turned up

none the worse for the experiment. A full-grown dog was paralyzed in his hind legs by a similar dose hypodermically over the loins, but it recovered. This drug is a germicide and anti-ferment of no mean quality. In some clumsy experiments made by myself I have estimated its potency in this field as about one half the strength of carbolic acid. It has long been used as a domestic remedy for the destruction of lice and other vermin.

"Years ago I was called to a woman among the poorer classes, of good intelligence and education, who was having a miscarriage. Upon my inquiring as to the cause of the mishap, with a prefatory reference to her poverty and already large family, she stated that she had induced the abortion herself—that she had done so on previous occasions. She had employed, she said, 'what other women used,' sassafras tea. She was surprised that I did not know of the property of sassafras as an oxytoxic. She spoke as if all her friends knew how to use it as an ecboic, and she evidently looked upon it as a specific. Tea, she said, made from four or five pieces of the root, as large as the thumb and twice as long, would produce abortive effect.

"A year or two later I was called to a woman two months pregnant. For several days she had had symptoms of miscarriage of so pronounced a character that arrest of the process was doubtful. I found the patient very anxious to have a child; she disclaimed the intention of inducing abortion, and to all my inquiries as to a possible cause of the hemorrhage, she gave answers which left me no further question except this: 'Have you been drinking sassafras tea?' Surprised, she replied that for a week past she had used it at breakfast and supper. The proper remedies for her condition were prescribed, the possibly offending tea left off, and in twenty-four hours all was quiet *in utero*."

Farther than this my experience with sassafras as a possible abortifacient does not extend. A study of the toxic effects of sassafras as reported by Dr. Hill, and here suggested, would seem to show a triple resemblance to three familiar articles, opium, strychnine, and ergot. In its action as a narcotic and sudorific it resembles opium. In its property of inducing tetanic and clonic spasms, followed by paralysis, it is similar to strychnine. In its power

hinted at of exciting the uterus, it may be linked to ergot.—*Jour. Am. Med. Ass'n*, Jan. 9, 1886.

Miller on the Therapeutics of Oil of Sassafras, Especially for Neuralgia.—A lady had been suffering severely for several weeks with pain in the chest, with uncontrollable cough. Hearing of the efficacy of the oil in arresting local pains, as an external application, without the advice of any one she poured a tablespoonful into a tumbler, adding three or four tablespoonfuls of water, and drank it, with the belief that if it did good externally applied it could do no harm to swallow a tablespoonful. This happened in the evening. The same night, about 10 o'clock, I was sent for to see her. I found her sitting in a chair, surrounded by her husband and children, who seemed amazed at her excited behavior. She was laughing and talking incessantly, and appeared, as it were, overflowing with the most benevolent and tender sentiments. On examining her pulse I found it with diminished volume, and considerably reduced in frequency, with the pupils of her eyes quite distended. I sat by her for some time, conversing with her, and at length left her apparently enjoying every felicity that could be afforded a human being by any thing on earth.

The next morning I called to see her, and found her still cheerful and happy, though not in transports, with pupils yet a little expanded, the pulse more voluminous, and approximating its usual speed. She had a perfect recollection of all that passed the night before, and said she did not believe she could have been happier in heaven. She presented no languor, no nausea of stomach, and, above all, was entirely without pain or cough, and she declared herself as being perfectly well; and so it turned out, that she was well from that time, and remained so as long as the family remained in that part of the country.

The next opportunity offered me to witness its effects was in the case of a mule, that seemed, from its extreme distress and restlessness, to be in a dying condition, and the lookers-on generally thought so; and, as usual, there were many prescriptions tendered. But the owner of the animal came for me in great excitement, fearful of losing his mule, which would greatly embarrass his pursuits, and asked if I could not advise him what to do for the animal.

Believing it to be a case of intense cramp-colic, I told him to give it an ounce of sassafras oil in half a pint of water, which he did. In five minutes the beast lay quietly, and seemed to be free from pain, and soon after jumped up and capered around the yard as though nothing had been the matter, and was from that time quite as well as usual.

Not long after this an estimable young man came to me with his face tied up, and suffering, as he said, excruciating pain, as he had been for several weeks, in spite of all the treatment given him. Satisfied that it was neuralgia of the sensitive nerves of the one side of the face, which had resisted quinine and morphine, and the various counter-irritants used in his case, I told him to saturate a piece of flannel with the oil of sassafras, and rub the affected side of the face briskly until the skin was reddened by the friction, and take a teaspoonful in several tablespoonfuls of water, and swallow it. The next time I saw him he declared that within ten minutes after taking the oil of sassafras he was entirely well, and remained so. He spoke of its exhilarating and cheering influence upon him, such as he had never experienced in taking other medicine.

The next case was that of my oldest daughter, who was attacked in the same manner, and with intolerable severity. It was the first and the last spell she ever had. She asked me to give her something to give her ease, if possible. I told her to rub the affected part well with sassafras oil, and take a teaspoonful in two tablespoonfuls of water. Some time in the night a message was sent to my chamber to visit my daughter. When I entered her room I found her sitting up in a chair, talking with the greatest correctness—the thread of discourse being now and then interrupted by hearty outbursts of laughter. I sat by her side for some time, enjoying her felicity; and seeing there was no danger in her case, I left her for the night; for instead of suffering pain as she had before taking the medicine, she was enjoying the greatest imaginable happiness. In the morning she came to the breakfast-table in good cheer—quite well, and free from any thing like depression, or any of those sequences usual upon the action of highly excitant medicines.

For some years afterwards, I pursued this course of treatment in every appropri-

ate case that presented itself, and can speak of it as highly worthy the attention of the profession.

There can be no doubt that a concentrated tea of sassafras induces cheerfulness, pleasantry, and free conversation; and I wonder that it has not been used at social parties, and by students and literary men who burn the midnight lamp, to give new vigor to their languor, and to revive the vigilance of their pursuits.

Now, the sassafras tree or shrub, is agreeably aromatic, and is common to both North and South America, and for this reason, perhaps, it is not strange that so little attention has been given to it as a medicinal agent by the profession. But the same has been the case with many other productions, both vegetable and animal; and, in truth, many owe their importance more to accident and discovery than to scientific research.

I should be pleased to have this subject referred in the same manner, so as to arrive at safe and certain conclusions. It is very important to determine the maximum and minimum doses, and the frequency of repetitions in a given time, according to age and intensity of disease, as well as to guard the purity of the oil; for the effects upon the patient must vary in proportion to the quality and quantity. Sometimes it will be found adulterated, and at others the bark may have been injured by neglect, or improper exposure, in large bulks, in damp places, rendering it mouldy or rotten. Hence, unfair judgment may be passed upon its action, and be condemned by the experimenter as worthless, when in fact its failure was due to other causes.

In giving sassafras oil a place in the materia medica, I would class it with the anæsthetics, as chloroform, and exhilarating gas, though not as violent and evanescent as the latter, while yet free from those unpleasant effects that frequently result from it. I am not prepared to say in what quantities it may be given with safety, as my opportunities in a country practice have been comparatively limited, and therefore I am particularly anxious of introducing it to the profession. I have never given it in larger doses than a teaspoonful, and sometimes I have repeated it in two hours, except in the first case as mentioned above, when a tablespoonful was taken.

I am satisfied it may be given with more safety than the *veratrum viridis*, and in

the same diseases. In despondent, hysterical women, I have no doubt it would have a charming effect; and in fevers, and other cases of sanguineous engorgement, or of cerebral tendencies. I would suggest that it might be a most eligible mode, whenever convenient, of giving it in a glass of soda-water.

From my own experience, I cannot say what effects a continuance of the tea must produce upon the system, or what would be the result of the habit of using the oil as a beverage. These questions I leave to those who have better opportunities, and whose enthusiasm in their profession, with the blessing of youth, with an earnest desire to investigate important truths for the relief of suffering humanity, will lead them to conduct every variety of prudent inquiry to determine the true value of the subject I have presented, however imperfectly it has been done.—*Virg. Med. Mo.*, Jan., 1886.

Debove on the Influence of the Quantity of Water Ingested upon Nutrition.—Having chosen in his service an hysterical patient, M. Debove suggested that she eat every day 200 grammes of meat, 600 grammes of bread, and should drink a litre of tea. This régime was followed for a month, then in the month following the quantity of tea was increased to 4 litres. During this time the weight of the patient had not changed. M. Debove concludes that the quantity of water ingested has no influence on the weight.—*Gaz. des hôp.*, 15th Dec., 1885.

Huchard on the Hypnotic Power of Hopeine.—The author has used hopeine as an hypnotic in three cases of tuberculosis, in one case of Hodgson's disease, in a case of insomnia with cardiac trouble and emphysema, in a case of uremia from lead poisoning, and in a case of pleural effusion. He administered from 2-5 grs. twice a day. Its hypnotic action was marked except in the last case. On waking, patients have no gastric trouble and no headache. Its freedom from cumulative action makes it a desirable medicine for children.—*L'Union médicale*, 23d Jan., 1886.

Pusinelli on the Action of the New Hypnotic Canabinon.—An hour before dinner he took gr. i. of canabinon. Shortly after eating, ringing in the ears, dizziness, and an inclination to stir about came on. Extreme anxiety, fear, and a maniacal

attack ensued. He knew his condition exactly and retained consciousness, his thoughts following each other in a circle with bewildering rapidity. Speaking and reading were difficult. This condition lasted two hours. During this time there was double vision, pulse became slow, extremities became cold and moist, pupils contracted, and sensibility was lowered. After the cessation of these symptoms came an unaccountable serenity. Later came a leaden fatigue, and before actual sleep all kinds of illusions.—*Cent. für Nervenheilkunde*, etc., 15th Jan., 1886.

Schutz on the Mechanical Action of Drugs.—This subject, which has been too long neglected, has lately inspired the researches of more than one inquirer. M. Schutz's experiments and results are extremely interesting, as may even be judged by the following description of one series of them only:—From healthy living dogs, the stomachs were carefully excised, and suspended in a glass chamber filled with moist air at 37 deg. C. (98.6 deg. F.), when the so-called spontaneous digestive movements propelling all contents towards the pylorus, frequently continued for periods of from 30 to 100 minutes. Inquiring into the action of weak solutions of various alkaloids, etc., upon this gastric activity, M. Schutz finds that distinct and chronic spasms are produced by digitaline, helleborine, muscarine, physostigmine, and sciläine; increase in the number and velocity of the movements was caused by apomorphine, caffeine, emetine, nicotine, strychnine, tartar emetic, and veratrine; while atropine, chloral hydrate, cocaine (as might have been anticipated), nicotine (in larger doses), and pilocarpine, quickly stopped these motions, or greatly diminished their activities.—*The Medical Press and Circ.*, Jan. 13, 1886.

Wearn on a Way to Make Turpentine Soluble in Liniments.—The dispensing pharmacist has to compound mixtures very often that are intended for liniments, composed of oil of turpentine (spts. turp.), ammonia water, and various stimulating tinctures combined with volatile oils, but none of the fixed oils. The two first-named, *i. e.*, oil of turpentine and ammonia water, are his foes in making a clear mixture. First, because the tincture is only sparingly soluble in alcohol; second, because the water in the aqua ammonia precipitates the oils, and when the mixture is

prepared and allowed to stand the turpentine separates and deposits in the bottom, and when shaken presents a milky appearance, objectionable from a pharmaceutical standpoint. This may be prevented when a fixed oil is not present: First, by adding from 1 drachm to 2 drachms of camphor to the fluid ounce of turpentine, which renders it soluble in all proportions of 95 per cent. alcohol or tinctures, and after which it will mix with tincture containing 5 per cent. of water. Second, by making a spirit of ammonia from 1 part stronger ammonia water and two parts alcohol; which is simply substituting alcohol in the preparation of ammonia water. By careful manipulation in preparing this class of liniments a clear liquid will be the result. The camphor certainly cannot be an objection, as it is based upon the turpentine radical and is generally a constituent of most liniments in the form of spirits. The alcohol is a valuable substitute for the water in the ammonia, so that the medicinal effect of the liniment is not changed.—*Western Druggist*, Jan., 1886.

Pécholier on the Antizymotic Action of Quinine in Typhoid-Fever.—The author attributes the good effects of quinine in this disease to antizymotic action, not to anti-periodic and anti-pyretic properties. He begins its administration with a daily dose of grs. xii. to xv., and continues it during the height of the fever, and diminishes it gradually to complete defervescence. If the morbid process is not checked, and the temperature remains high, he uses tepid baths, which, by diminishing the temperature, have probably an anti-zymotic action in addition to that of the quinine. The intestinal antiseptics proposed by Bouchard is a secondary indication for the administration of quinine. It is very likely due to its toxic effects upon the ferment or bacillus of typhoid-fever. The author forbids the use of quinine in doses of 45 grs. a day.—*L'Union médicale* Dec. 19, 1885.

Peisson on the Treatment of Acute Cerebral Rheumatism by Tepid Baths and Large Doses of Hydrate of Chloral.—His two cases were ushered in by inflammation of the joint, later the endo- and pericardium, last of all the brain. In one the symptoms developed with a terrible intensity and rapidity, and death quickly followed; in the second they ter-

minated by lessening and disappearing. He believes that recovery was due to repeated bathing and large doses of chloral. The first method is classical, the second is relatively new and little known, but has been alluded to by Prof. Vulpian.—*Gaz. méd. de Paris*, Jan. 16, 1886.

TOXICOLOGY.

Knight on Poisoning by Bichromate of Potassium.—A woman, aged fifty, had given to her by the mistake of a chemist's assistant, bichromate instead of bicarbonate of potassium. Of this she took 15 grs. dissolved in half a teacupful of water at 8:30 A.M. Immediately after she felt ill, and, in a quarter of an hour, she vomited, purging supervening an hour after sickness commenced. Symptoms soon became more active, and she had cramps in her legs, and pain in her body, with frequent copious bloody stools, and she became collapsed with quick, thready, feeble pulse. Chalk, opium, milk, demulcents, warmth to surface, and subsequently nutrient enemata of egg and brandy, with starch and laudanum, gave relief in twenty-four hours; the more active symptoms abated, and she gradually made a good recovery. Mr. Knight said he had been unable to find any recorded case of recovery after poisoning by this salt in which the dose which caused the active symptoms was mentioned. In his case he was able pretty accurately to estimate the amount taken.—*The Med. Press and Circular*, Dec. 9, 1885.

Kedzie on the Drinking-Water of the Sawdust Cities.—To a special cause of poisoned drinking-water, Dr. Kedzie, in a paper published by the Michigan State Board of Health, has directed our attention. He has been examining the drinking-water of the sawdust towns and villages of Michigan. These towns are usually built on the marshes adjoining streams down which logs can be floated. The refuse matter, including sawdust, is utilized to fill up the marshy places. On this filled-in ground much of these towns are constructed. In this filled ground wells are dug, and a decoction of the organic decaying matter fills the cavity and furnishes the drinking water of these places. Dr. Kedzie gives in full detail the results of his examinations. These are horrifying to any

person who prizes his alimentary canal sufficiently to care for supplying it with pure water. He examined the water from the wells of many of these sawdust towns, as the Saginaws, Bay City, Grand Haven, etc. From all these researches he deduces the following conclusions:

These sawdust waters all contain an amount of organic matter sufficient to condemn them for potable and culinary purposes. They all contain resinous extractive matter in solution. They all contain nitrogenous material capable of yielding albuminoid ammonia greatly in excess of the sanitary limit. They all contain the chemical elements necessary to sustain new forms of plant life. In the presence of so large an amount of organic matter and the essentials of plant life, these waters may become dangerous by nourishing and reproducing the germs of epidemic disease, should they find lodgment there.—*The Detroit Lancet*, Dec., 1885.

OBSTETRICS AND DISEASES OF WOMEN.

Martel on Pregnancy and Tuberculosis.—A young girl, tall and slender, but who considered herself very healthy, was seized in the spring of two consecutive years with attack of apparently mild bronchitis. Her recovery was not complete, and there remained always beneath the clavicles, particularly on the right side, a focus of moist râles.

Some weeks after her marriage she complained of a sore throat. The following month there was made out a rapid advance of consolidation of the lung with a simultaneous bronchitis. Gastric symptoms set in, and soon certain signs in the abdomen and breasts rendered the existence of pregnancy certain.

All the symptoms then became aggravated, and an intractable diarrhœa set in. The following morning, a severe sense of oppression came on, at first without pain, afterwards accompanied by strange and painful sensations in the left side. In spite of all endeavors, death took place the evening of that day, the seventy-fifth day of pregnancy, the cause of her death being, probably, pneumothorax.—*Gaz. des Hôp.*, 16th Jan., 1886.

Pincott on Twin-Gestation—Second Twin Born Seven Weeks After

First.—On October 21st, I found Mrs. G. had been unexpectedly delivered of a child on October 18th by a midwife. The child was a premature infant of about seven months, well formed, but small, and so weakly that I concluded it would not live through the day. I gave instructions as to nursing, etc., but it died the same afternoon at four o'clock. I did not examine the mother. On the following Monday, October 26th, the husband requested me to visit his wife, as she was not doing well. He stated she had much pain, which the midwife said was "only wind." I found the woman doing apparently well, but the "stomach" (to use the nurse's phrase) "had gone down." On external examination, I distinctly felt the movement of a fœtus *in utero*; and, on auscultation, could distinguish the fœtal heart-sounds.

Inquiring of the nurse (the midwife had given up the case as convalescent), I ascertained the patient had, on Sunday, October 18th, been suddenly seized with labor-pains at 10 A. M., and the child was born about 3 P. M.; the after-birth came away easily, and all went well with the exception of "curious moving and pain," which the midwife said was "only wind."

I told the husband and patient that there was another child, and, judging from the appearance of the one that had died, this would not arrive at full time for about six weeks. The patient did well, came downstairs at the expiration of a fortnight, and was able to do light housework.

On November 19th, I was summoned about 8 P. M. Labor was just commencing. The os not having dilated, I returned home and called later, when I was able to diagnose a breech-presentation. The pains were feeble, but seeing no cause to interfere, I waited till about 2.45, when the breech and body were delivered. All pains then ceased, and the head was firmly impacted in the pelvis. I feared the child was dead, as the heart-beat could not be felt, although I had distinctly felt fœtal movements just before the rupture of the membranes, about 2 A. M. Ergot and brandy having been given, and external pressure applied without success, I delivered the head by traction (forcible), and endeavored, by artificial respiration, etc., to restore the fœtus, which was a fine female of full time, but without avail. The after-birth came away easily, and the mother made rapid recovery, being able to

walk, as I afterwards heard, a distance of four miles, in less than a month.

I have ventured to report this case, believing it to be of interest for the following reasons: 1, the early delivery of the first foetus with a separate after-birth; 2, the presence of the second being overlooked by the midwife; 3, its retention *in utero* thirty-five days after the birth of the first; and 4, the convalescence of the mother in the interval between the two births.—*Br. Med. Jour.*, Jan., 1886.

Post and Coe on Hysterectomy.—

The results of kolpohysterectomy for cancer, according to Dr. Sara E. Post,¹ have progressively improved with increase of the number of operations.

The total number of operations done up to the present time is approximately 341, with a total mortality of 27 per cent. Two hundred and twenty-two cases were treated with the open peritoneal wound, with a mortality of 22 per cent. Of the 222, 93 had the supravaginal wound covered by peritoneum, with a mortality of 18 per cent.; and of the 93, 50 were operated upon during the last three years, with a mortality of 10 per cent.

Of 97 cases which survived operations done previous to 1883, 18, or 20 per cent., are known to have been well at the end of eighteen months or two years.

The latest results of kolpohysterectomy for cancer contrast not unfavorably with those of the total extirpation of other organs for malignant disease.

The tendency of medical literature is to regard kolpohysterectomy for cancer as a legitimate operation, subject only to the restrictions common to other extirpations for malignant disease.

According to Dr. H. C. Coe,² the writer's experience with the operation has been limited to the observation of four Freund's operations and three cases of vaginal extirpation. Two of the former could not be completed, and *all* resulted fatally, although they were performed by experienced operators. In four of the cases, in which the writer made a careful examination of the specimens, the disease was found to be *strictly limited to the cervix*, so that supravaginal excision would have answered every indication. Moreover, there were no evidences of parametritic deposits. And

yet the operators were accomplished diagnosticians! One case was interesting, because it proved the treacherous nature of uterine sarcoma. The lymphatics and pelvic tissues were absolutely intact, while the mucous membrane of the small intestine was studded with metastatic deposits. And yet some writers affirm that sarcoma of the uterus is *the* indication for vaginal extirpation!

Certainly the scope of the operation is limited one. None but the experienced have any right to attempt it, for, to tell the truth, it is the reporters of isolated cases (most of them fatal) who have done the most to discredit it. We are sure that we only reflect the opinion of fair-minded men when we say that if vaginal hysterectomy is to obtain a foothold, it must become for a time a little less fashionable.

DISEASES OF THE EYE AND EAR.

Critchett and Juler on Essential Shrinking of the Conjunctiva.—

One case—that of a farmer, aged fifty-three—was of special interest, as it had been under observation from its commencement. He came under Dr. Felix Semon's care in September, 1884, on account of an affection of the right nostril, which resembled syphilitic perichondritis and periostitis. In June, 1885, he was transferred to Mr. Nettleship's care, on account of epiphora and conjunctivitis, with partial obliteration of the lower *cul-de-sac*. The conjunctiva of the upper lid was marked by scars parallel to the free border. The affection went on progressively from bad to worse in the right eye; and in August, 1885, slight conjunctivitis of the left eye was noticed. The right eye had finally become almost blind. Both eyelids were thickened, and partly adherent to the globe. Both *culs-de-sac* were obliterated; and, though the globe moved pretty freely, the lids moved with it. The lashes were inverted, and the cornea opaque and vascular. Similar shrinking of the conjunctiva had commenced in the left eye; the lashes were turning inwards; and the *culs-de-sac* were so much diminished that the lids could not be everted without difficulty. The conjunctiva was red and velvety, but showed no scars. Vision was still fairly good. The man gave a distinct

¹ *Am. Jour. Med. Sci.*, Jan. I, 1886.

² *Annals of Surgery*, Dec., 1885.

history of syphilis ten years earlier. No sign of pemphigus could be discovered on the body, though the man stated that he had seen bullæ on his palate. Mr. Critchett expressed the opinion that the condition had no relation to pemphigus, but was an essential shrinking of the conjunctiva, similar to that described by Gräfe (*Arch. Oph.*, vol. xxiv.) and Bäumler (*Monatsblätter für Aug.*, August, 1885).—Dr. F. Semon said that the patient came under his care in September, 1884, suffering from a mucopurulent discharge from the nose, which was sometimes streaked with blood. Beyond slight superficial ulceration of the mucous membrane, there was nothing to account for the symptoms. At that time, the only part affected was the left nostril. Mercury and iodide of potassium, given separately and in combination, produced no improvement; but, while he was under this treatment, on one occasion, several large bullæ appeared, and the skin of the face was in a brawny condition, resembling erysipelas. This subsided after withdrawing the drug. Conjunctivitis soon afterwards appeared, and some small serpiginous ulcerations of the mouth. He had been impressed by the infective character of the malady, and had suggested that it might be a case of very slowly advancing glanders.—Mr. Lang quoted a case reported by Schweigger, which agreed closely with the patient shown by Mr. Anderson Critchett. Cases of the disease had been seen at all ages, and in many of the cases there was no suspicion of a specific history.—Mr. Juler was struck by the exceedingly localized nature of the disease in Mr. Lang's cases. In a certain proportion of the cases, no pemphigus was ever observed; while in others, where bullæ were seen, the amount of shrinkage of the conjunctiva was more extensive.—Mr. Nettleship said that, even if the disease were allied to pemphigus, there was a good deal more extensive inflammation than mere conjunctivitis, for there was great thickening of the lid.—Mr. Malcolm Morris thought that the use of the term pemphigus required justification. The presence of a syphilitic history in certain of the cases suggested that the disease was a late syphilitic lesion. The slow progress of the case, the occurrence of new growth, probably inflammatory, in the skin, seemed, however, to show that the disease was more allied to rhinoscleroma.—*Br. Med. Jour.*, Dec. 19, 1885.

Toxic Action of Cocaine in Ophthalmology.—Reich narrates, in the *Médecine Russe*, 30, 1885, a case where fifteen drops of a two-per-cent. solution of cocaine were distilled into the eye in a girl of ten, who had an iridectomy performed. General malaise came on, with pallor of the face, nausea, and vomiting. All bad symptoms disappeared at the expiration of twenty-four hours. In a second case he removed a recurrent cataract from a woman aged sixty. Eight to ten drops of the same solution were instilled. Two hours later she was seized with sharp pains in the affected eye and head. In a half hour this disappeared, but the patient became weak and was bathed in a cold sweat; her hands trembled, and she became slightly dizzy.—*L'Union méd.*, Dec. 12, 1885.

Diabetic Retinitis.—A patient suffering from diabetic retinitis was shown by Mr. E. Nettleship. Scattered over the fundus were a large number of white patches and spots. He considered that they differed in position, mode of arrangement, and color, from those of albuminuric retinitis; he had noticed differences of this kind in a few other cases of diabetic retinitis. The yellow-spot region of the right side was occupied by a dense irregular mass of the white deposit; there was no tendency to radiate arrangement round the yellow spot. The general tint of the spots was, he thought, yellower than in albuminuric retinitis. The patient was a man, aged fifty, with cataract on the left side. The appearances had remained unaltered since January, 1885. Dr. Stephen Mackenzis pointed out that Lebert had shown that, though the majority of early observers had assumed that retinitis in diabetes was due to albuminuria, retinitis might occur in connection with diabetes independently of albuminuria. He did not think the appearances characteristic; anæmia, cerebral tumor occasionally, and lead-palsy, all produced retinal changes closely resembling those of albuminuric retinitis. In a case reported by Lebert, and in another reported by himself, there were hemorrhages into the vitreous body. He inquired whether the combination of hemorrhage into the vitreous body with retinitis could be considered characteristic of diabetic retinitis. Mr. Nettleship agreed that retinitis with retinal hemorrhages and white patches, combined with hemorrhage into the vitreous body pointed very strongly to diabetes.

The question on which he felt doubtful was, whether an eye, in the state seen in the patient, was a later stage of the same condition, and whether the changes were characteristic of diabetes, as he was inclined to think. Dr. S. West was inclined to agree with Mr. Nettleship. He did not think the appearances bore any close resemblance to albuminuric retinitis. Mr. Adams Frost suggested that the changes in the retina in the patient resembled those seen in albuminuric retinitis in the late stage, and that they appeared to be unusual, because patients with albuminuric retinitis seldom survived long enough. Mr. McHardy suggested that diabetes was sometimes overlooked, owing to this resemblance.—*Br. Med. Jour.*, Dec. 19, 1885.

Chisholm on a Piece of Iris Living in the Vitreous Chamber.—G. T. S., aged fifty-nine, six months ago fell down a railroad embankment, receiving an injury to the right eye. When seen by his family physician six hours after the accident, he was suffering intensely. The lids had already become very much swollen. Upon carefully separating them, a wound was discovered at the upper edge of the cornea, from which a thick splinter of wood was protruding. The removal of this bit of wood was accompanied by a bloody aqueous discharge, leaving, however, so much blood in the anterior chamber as to conceal the amount of injury done to the eye contents.

The treatment pursued was rest, cold applications, and the internal administration of anodynes. As the swelling subsided and the blood was absorbed, it was found that sight had been so materially impaired as to leave only perception of light. In time, however, the vision slowly improved, till after three months large objects could be again recognized. In the meantime, the left good eye indicated some growing impairment of vision for distant objects, and the spectacles heretofore worn with comfort no longer permitted easy reading.

This growing defect of vision in the good eye was supposed to be a sign of sympathetic complication, and for this reason the patient was sent to me for surgical treatment.

I found the left good eye hyperopic, V $\frac{1}{8}$; with a $+\frac{1}{8}$, his distant vision became $\frac{1}{2}$, even above normal, and he read brilliant type readily with a $+\frac{1}{8}$ lens. His

spectacles were $+\frac{1}{8}$, which accounted for his discomfort. At first sight the injured right eye presented every appearance of a successful cataract extirpation.

The iridectomy was large, well shaped, centrally located, and clean to the very ciliary border. The well-formed artificial pupil was black, with traces of capsular deposit as is seen after successful cataract-operations. He could detect large objects and count fingers readily at four feet, the distance at which I was sitting from him.

In putting a $+\frac{1}{8}$ lens before his injured eye I was surprised to find V $\frac{1}{8}$, and with a $+\frac{1}{8}$ of $\frac{1}{8}$ lens he could make out words in brilliant type.

He complained of something moving about in his eye, which seemed to wave before his sight. By oblique illumination I could see a whitish body in the vitreous. With ophthalmoscopic illumination the examination showed a healthy fundus and clear vitreous, so as to give a perfect retinal picture.

Hanging from the roof of the vitreous chamber at some little distance behind the thin, partial capsular film, was a flap of membrane apparently one line wide and two lines in length. It was rectangular in shape and of a yellowish-white color. Upon its anterior surface could be clearly traced a vessel of some size, which, starting at the base, ran down through the whole length of the membrane, to the free extremity of the flap.

This piece of living tissue moving to and fro in the vitreous with the movements of the eyeball, and adhering to the upper anterior edge of the choroid, could be nothing else than the missing piece of iris.

The splinter of wood in entering the eye through the upper scleral border of the cornea, had torn the iris in two places from the pupillary border to the ciliary region, in this way punching a piece out of it. This detached bit of iris had been pushed back into the vitreous chamber, carrying with it a portion of its ciliary body. It remained adherent to the ciliary body at one point by a broad base.

The lens must have been injured also at the time of the accident, because through its torn capsule the aqueous humor had been brought in contact with it, resulting in its complete disappearance by absorption.

As there was a broad base to the flap, with ample nourishing blood-vessels, the

piece of displaced iris had continued to live. Under ophthalmoscopic examination it showed boldly as a whitish-yellow membrane against the healthy red reflex of the fundus. Curiously, the passage made by the splinter into the vitreous chamber had not been invaded by inflammatory deposits. The hyaline structures had taken on no pathological changes, and, therefore, excellent vision had been retained in this curiously injured eye.—*Medical News*, Jan. 23, 1886.

Bates on a New Operation for the Alleviation of Persistent Deafness.—Many cases of deafness are not benefited by thorough catarrhal treatment, inflation of the middle ear, the use of Siegle's otoscope, an artificial opening in the drum-membrane, division of the tensor tympani, etc. I desire to call the attention of the profession to an operation which has benefited a number of these obstinate cases.

The operation consisted in puncturing or incising the drum-membrane in from five to ten different places. Simple punctures were made, or the drum-membrane was slit in various directions. The operation was repeated as soon as the openings in the drum-membrane had healed. The size and freedom of the incisions must be determined after the first operation for each case.

For the operation I employed a Graefe cataract-knife with a long shank. It is important that the knife be *sharp*, and to make this certain I often used a freshly sharpened knife for each puncture. Pain was avoided by this precaution. A dull knife, or the paracentesis instruments sold in the shops, caused more pain than the patients could bear.

Cocaine was not necessary when the knife-blade was in proper condition, and this remedy would not prevent pain when the knife was dull.

The result of this operation is to leave a number of cicatrices in the drum-membrane; the subsequent contraction of these producing a tension by which the membrane is drawn out. The membrane frees itself from adhesions in this manner, and in many cases loosens the anchylosed ossicles. The various benefits of paracentesis, as formerly employed, are not only obtained but much increased. It is not an improvement—the result of a perforation of the drum-membrane alone, which, as is well known, is often doubtful and tran-

sitory, but the subsequent healing of the openings is part of an improving process. The operation, suggested by that of paracentesis, differs from it in the simultaneous number and extent of the incisions, as well as in the purpose for which it is resorted to, and in the immediate and subsequent results.—*N. Y. Med. Record*, Jan. 23, 1886.

Ware on Ossification of the Chorioid.—A farmer, æt. twenty, of American birth, when nine years of age was struck accidentally in the right eye with the handle of a pocket-knife, which completely and instantly destroyed vision, and caused severe inflammation in and about the eye, accompanied by great pain and much distension of the ball and surrounding tissues. This continued for several weeks. During the five or six subsequent years the injured eye caused little or no trouble. During the winter of 1875-6, when he was 16 years of age, or seven years after the accident, as a result of severe exposure the injured eye again became painful, at times better, at times worse. Pain usually subsided in a few days if the patient remained quiet in a darkened room, and made frequent hot applications to the eye. In the winter of 1880 left eye began to be somewhat sensitive to light, particularly to artificial or light reflected from snow.

The patient was first seen in July, 1880. The R. or injured eye was somewhat atrophied, tension greatly diminished, and slightly tender on pressure, although not markedly so. In the L. eye there was photophobia, lachrymation, slightly sluggish pupil, and supra-orbital neuralgia. Vision for the distance tolerably good ($V = \frac{1}{16}$), but it was quite impossible for him to read even Jæger No. 11 more than a minute or two on account of the lachrymation and ciliary neuralgia which it induced. Ophthalmoscopic examination showed well-marked neuro-retinitis.

I advised immediate enucleation of the injured eye, but it apparently gave him little trouble, being only slightly painful at times, and as he was a farmer, he did not like the idea of wearing an artificial eye and submitting to all the inconvenience such an eye entails. He declined to submit to the operation and returned home. In the latter part of August, five or six weeks after his first visit, he returned to the city and was quite willing to submit to the enucleation of the injured eye, as his symptoms had grown much worse after

reaching home. Tenderness on pressure of R eye was much increased, and the eyeball intensely injected. In the L eye considerable pain and supra-orbital neuralgia, sluggish pupil and photophobia. $V = \frac{1}{8}$. Enucleation was performed August 24th.

The vitreous was liquefied and immediately escaped, leaving the retina in the form of a cord extending from the fundus or posterior portion of the ball to the anterior, where it expanded funnel-like and enclosed a calcareous lens. The ossification was situated in the choroid, its thickest portion corresponding with the entrance of the optic nerve. The eyeball was somewhat atrophied, measuring a trifle over two centimetres in the antero-posterior diameter, and a little less than two centimetres in its equatorial axis. The ossification measured fifteen mm. in length, concavo-convex; the concavity looking forwards, and from four to eight mm. in width. Measured from the optic disc it was a few mm. longer on the outer than on the inner side. Its greatest thickness, which was at the optic disc, was two mm. The posterior or convex surface of the bone was well-marked with choroidal pigment. Five years have now elapsed since the enucleation, and no relapse has occurred in the eye sympathetically affected. Jan. 9, 1886.

MISCELLANEOUS.

Sarrazin on the Treatment of Hydrocele by Puncture and Injection of a Sublimate Solution.—He concludes :

1st. The sublimate is much preferable to the tincture of iodine in treatment of hydrocele, and is never followed by symptoms of poisoning.

2d. It produces adhesion of the sac without causing pain, except a slight sensitiveness of the testicle, while the inflammatory reaction is moderate and sufficient.

3d. 200 gr. of a solution of sublimate, 1000, are injected into the tunica vaginalis, and 100 gr. of the liquid are left there.—*Paris Medical*, Jan. 16, 1886.

Bichloride Sawdust.—

To the Editor of the Analectic :

DEAR SIR—In an article of the ANALECTIC for December, 1885, headed "Corrosive Sublimate as a Dressing," a case is cited in which it was used on a child, a seriously injured leg being inclosed in "bichloride sawdust." Had not the tere-

binthinate effect of the sawdust itself something to do with the good healing of the same? Respectfully, etc.,

W. H. LEWIS, M.D.

HAYWARD, Wis.

Dana on the Relation of Lithæmia, Oxaluria, and Phosphaturia to Nervous Symptoms.—He concludes that :

1. There is no such thing as a lithæmic or uric-acid diathesis, or as an oxalic-acid or phosphatic diathesis.

2. There are, however, morbid conditions of the nervous system which are associated with excessive acidity of the urine and excess of uric acid in the urine. The morbid nervous symptoms in these cases are those of gastric neurasthenia, lighter forms of spinal irritation, great nervous irritability, vertigo, headache, bad sleep, hypochondriasis, etc.

3. The "lithæmic state" is one that is allied to gout and rheumatism, rather than identical with either.

4. The lithæmic state in question, associated with nervous symptoms, is generally brought on by some overstrain or draining of the nervous system, or by some chronic poisoning of it, as by malaria or lead. It is probably a trophic or metabolic neurosis comparable to diabetes.

5. Oxaluria is generally only a form or indication of lithæmia. When oxalate of lime occurs in abundance with deposits of earthy salts, it has no clinical significance.

6. Phosphaturia, or an excessive deposit of earthy and alkaline phosphates in the urine, may be only apparent and due to deficient acidity of the urine from excess of vegetables or fruits in the diet. But an excessive discharge of phosphates may accompany conditions of functional nervous depression and irritation. It indicates in these cases a disturbance of digestion, due perhaps to some perversion of the innervation of the digestive organs. If kept up, the loss of phosphates and undue alkalinity of the blood may react upon the nervous system, but in the vast majority of cases phosphaturia is only an evidence of indigestion.

7. It is of great importance for purposes of diagnosis and treatment of chronic functional nervous disorders that a careful study of the acidity and alkalinity of the urine be made, and that the proportions of urates and phosphates discharged be estimated.—*N. Y. Med. Record*, Jan. 16, 1886.

Merck on Artificial Cocaine.—

Merck has succeeded in manufacturing

cocaine from benzoyl-ecgonin. It may be obtained by heating benzoyl-ecgonin with a slightly larger quantity of iodide of methyl and a little methyl alcohol in a tube to 100 degrees. This mixture is digested in a water bath, to expel the undecomposed iodide of methyl and methyl alcohol. From the syrupy residue cocaine is extracted as a hydriodate. From this salt pure cocaine, dissolving at 98 degrees the same as natural cocaine—is produced. The artificial substance is found to answer all tests.—*Western Druggist*, Jan., 1886.

Waters on Symptoms Resulting from Swallowing a Caterpillar.—"On November 10th I was called to prescribe for a child seven months old. From the parents I learned that the patient had been in good health previous to 2 P.M., and at that time awoke from a sound sleep with a scream and appeared to be choking. Nothing could be found in the throat to account for these peculiar actions, but considerable redness was noticed about the fauces. At 8 P.M. I found the throat intensely inflamed, a slight elevation of temperature, pulse feeble and rapid, and the patient very restless. The following morning the throat inflammation had subsided, but the temperature had reached 102° F., there were symptoms of intense gastric distress, and the face, body and upper extremities were covered with an eruption resembling a severe case of urticaria. Bismuth and oil were ordered with a mild opiate. On the morning of November 12th, the eruption, with exceptional spots, had disappeared, the temperature had fallen to 99.5°, and there were no indications of pain. The patient was much better, and well it might be, for with the first free stool was passed the body of a caterpillar an inch and a half long, and larger than the common lead pencil; the hair had been completely stripped from the body, which was complete and covered with mucus. With the two following stools came the brown hair of the caterpillar. This was followed by an inflammatory diarrhoea for three days, when the child began to improve rapidly and is now in good health."—*N. Y. Med. Record*, Jan. 23, 1886.

Duval on the Treatment of Eclampsia Puerperalis.—A reaction has been taking place for a number of years in favor of the sanguine practice. In advocating its judicious use I base such advocacy upon

an experience with this formidable complication quite large, for one having comparatively a circumscribed field of obstetric observation. By judicious use I mean that every case must be a law unto itself. If, after proper interrogation into all the conditions, venesection seems likely to accomplish the staying of further manifestations, it should be with freedom and fervency essayed. The effect, not the quantity, should determine when to stop.

My plan has been to bleed until a very decided impression was made upon the circulation. Bleeding before delivery is by most authors deemed sufficient; and this is doubtless a correct position, provided the work has been at the first well done—bromides with chloral, morphia and chloroform afterwards, being the main reliance.

In assuming that probably eight out of every ten cases of the centric type need to be bled, I but echo the sentiment of most of those whose experience gives them the right to entertain this view.

Chloroform is an agent here of potential influence, and can be used with much confidence in lessening the violence and the length of the "spasm." It has probably no curative property, is adapted only to the emergency of the paroxysms. Chloral is highly commended upon the theory of its power of lessening cerebral hyperæmia and of checking or holding in abeyance reflex action. It seems strange that this latter quality in this drug has been challenged by so eminent an authority as Dr. Fordyce Barker.

The bromides, with chloral, have their place and an important one too. Still in many cases the difficulty of their administration to a semi-comatose patient in a measure negatives an attempt at their exhibition by the mouth at least. This objection does not apply with equal force to their use per anum.

Calomel rubbed up with butter and placed on the back of the tongue will subserve an admirable purpose when a purgative is needed.

Morphia hypodermically is an agent of great good and should rarely be omitted. Upon grounds theoretically seemingly tenable opiates were discarded, and until a few years ago were not given. Now experience clearly demonstrates their value. Morphia, probably the acetate, is given by the syringe *pro re nata*, and no agent will more certainly fill the measure of your expectations.

For diaphoresis, and as a salivary excitant pilocarpine has no superior, and in the uræmic type the skin should be excited to free action, thus contributing largely to freeing the system from the toxic element. *St. Louis. Cour. Med., Jan., 1886.*

McKee on Intracranial Cephalæmatoma.—In a paper before the Mississippi Valley Medical Society, the author said: The intracranial variety consists of effusions of blood situated between the skull and dura mater and in the arachnoid cavity. Their etiology he thought to be similar to that of the extracranial variety. Pressure during delivery he considered to be a frequent cause, though the tumors occurred in those of easy labor, in breech presentations, and those delivered by Cæsarean section. The crushing during delivery, he thought, would loosen the pericranium or dura mater from the bone and rupture the small bone blood-vessels. This pressure removed, the vessels allowed diapedesis, or hemorrhage, to take place. The sources of this hemorrhage may be tender blood-vessels, a varicose condition of the vessels, a hemorrhagic diathesis, inherited tendency, or fissure of the bone. The excess of the external over the internal variety is due to the direction of the pressure and to the greater porosity of the outer part of the skull.

The diagnosis is made by the symptoms of brain pressure, twitchings, convulsions, stupor, or paralysis.

The prognosis is grave. Death comes from brain pressure, necrosis, or caries of the bone, leading to perforation, thrombosis of the cerebral sinuses, extension of the inflammation into the meninges and the brain itself, and pyæmia. Idiocy may result.

Treatment did not occupy much space in the paper, as it had never been attempted in this variety, the diagnosis being always made *post mortem*. He suggested the possibility of the trephine being of utility in the intracranial variety, and reported a case of his with post-mortem.

BOOK NOTICES.

Epitome of Diseases of the Skin.—Being an abstract of a course of lectures delivered in the University of Pennsylvania during the session of 1883 and 1884, by Louis A. Duhring, M.D., Professor of Skin Diseases. Reported by Henry Wile, M.D., Clinical Assistant in the Department of Skin Diseases in the University Hospital, Philadelphia. J. B. Lippincott Company, 1886.

This is a neatly printed little book containing 107 pages of text with a good index and bound in cloth. The author in his preface says: "It need scarcely be stated that this little volume can in no degree take the place of the more complete works on diseases of the skin." And such indeed is the case. Just why books of this style are published it is not easy to state. One depending wholly on the information to be derived from this book for the diagnosis and treatment, to say nothing of the etiology and pathology, of the seventy odd diseases mentioned, would certainly find himself many times "at sea," while one having a large work, such as Prof. Duhring's excellent treatise, could have no use for this epitome. To those attending clinical lectures on diseases of the skin it may be an aid and thus do a good service.

The space given to each disease is, necessarily, brief. Eczema is disposed of in nine pages, and nothing is said of eczema of the scalp, surely a troublesome and common form of this disease. Acne is given five pages, one of which is devoted to formulæ.

In general, pathology and etiology are briefly mentioned or omitted. The remarks on diagnosis are clearly stated, while those on treatment are hardly positive enough to satisfy students and those unfamiliar with dermatological therapeutics,—the word "may" almost invariably preceding any directions or formulæ given.

Practical Notes on the Treatment of Skin Diseases. I. Diseases of the Perspiratory and Sebaceous Glands.—By George H. Rohé, M.D., Professor of Hygiene and Clinical Dermatology in the College of Physicians and Surgery, Baltimore; Author of "A Text-Book on Hygiene," etc. Baltimore: Press of Thomas & Evans, 1885. Price 25 cents.

This is the first of a series of notes on Treatment of Skin Diseases, to be published in paper covers at a low price by the same author. This volume contains forty-seven pages of text, and in addition twenty formulæ and an index.

The same general remarks apply to this as to the preceding. Fewer diseases being treated of, each is given in this book a more extended description, and the author's remarks on treatment are, as a rule, given in a forcible manner.

BUSINESS NOTICES.

Peacock's Bromides.—I have used Peacock's Bromides in my practice with success. A little girl twelve years old had been afflicted with epilepsy since she was three months old, having epileptic convulsions nearly every day until I put her on Peacock's Bromides. Since then she has not even had the symptom of one. It IS SURELY A GREAT REMEDY.

JEFFERSON WILCOX, M.D.
Hazelhurst, Ga.

Iron-Alum Mass.—For dyspepsia, ulceration of the mouth and throat, leucorrhœa, etc., the "Seven Springs Iron-

Alum Mass" seems to act with almost specific effect.

E. O. GRIGGSBY.

De View, Ark.

Emulsion of Cod-Liver Oil.—Send to J. A. Magee & Co., Lawrence, Mass., for sample of their Emulsion of Cod-Liver Oil and mention MEDICAL ANALECTIC. This Emulsion is in combination with Syrup of Hypophosphites and Extract of Malt—the latter disguising the nauseous taste of the Cod-Liver Oil.

Peptonized Cod-Liver Oil and Milk.

—This peptonization business has completely discounted all manner of emulsions of cod-liver oil.

In the peptonized preparation the cod-liver oil and milk are completely digested and ready to be absorbed by the lacteals, but in an emulsion the oil is only "cut" and held in subdivision. It is the same disagreeable stuff, and ready to disagree with an ostrich's stomach, while the peptonized article has had the objectionable qualities removed outside in advance.

Since Reed & Carrick have put the peptonized article on the market, emulsions are abandoned.

Muscular Exercise, with Electric Currents.—Smith & Shaw Electric Co., New York, have perfected dumb-bells embodying an electro-magnetic battery, which admit of muscular exercise and electric quickening going on simultaneously.

This is a novel, and may be made a very useful, apparatus.

Phosphopeptine in Typhoid.—The credit of compounding this very valuable preparation belongs to C. A. Higgins, Flemington, N. J., who will send you the formula, with full directions, if you send him your address.

Infantile Convulsions — Mellin's Food.—The following, among other tributes to the value of "Mellin's Food for Infants," is selected from an article contributed by Dr. H. R. Bigelow, Washington, D. C., to the *Archives of Pediatrics*: A physician was called to see a case where the child had convulsions after each feeding. He questioned the mother in regard to the milk used. She persisted that it was one cow's milk from a fine Jersey on her own farm, and was quite unwilling to make any change. She was finally persuaded to try the milk from another source, and use

it with Mellin's food. The child began to improve at once.

Folding Chair.—This is the *chef-d'œuvre* of the New Haven Folding Chair Co., and is a cosy Yankee invention, combining the conveniences of a chair, a bed, and a carriage in one.

Invalids who would like to wheel themselves around the country should send for particulars as to price.

Wheel-Chairs.—M. Klein, Chicago, invites the attention of physicians to his adjustable iron operating chair.

Some who have tried it think no office is complete without one of these chairs.

Chapman, Green, & Co., will mail to the profession a descriptive list of their specialties, also samples, if express charges are paid and MEDICAL ANALECTIC mentioned.

Albany, N. Y., June 8, 1878.

I have given Lactopeptine a good, thorough trial, and have been greatly pleased with the excellent results that have followed its administration.

A. VAN DERNVER, M.D.,
Prof. of the Prin. and Prac. of Surg., Albany Med. College; Surg. Albany and St. Peter's Hospital.

New Remedies.—The Rio Chemical Co., of St. Louis, still press onward in the distribution of information regarding four valuable preparations, viz.: Celerina, Aletris Cordial, Acid Mannate, and Pinus Canadensis. Their testimonials from prominent physicians are convincing enough to encourage the entire profession to give them all a trial.

Osteo-malacie — Syr. Hypophos. Comp., Fellows'.—This syrup contains the essential elements, potash and lime, the absence of which, in the system, becomes manifest by softening of the bones.

When occurring to nursing infants the syrup hypophos. comp. should be given liberally to the nurse or mother, so that the infant may be medicated while being nourished.

See Waite & Bartlett's advertisement in this number. They are well posted and wide-awake electricians. Send for their illustrated catalogue and mention MEDICAL ANALECTIC.

Debility of Convalescents — Beef Peptonoids.—Carrick's preparation is spoken of by Prof. Tichborne, of Dublin,

as the most concentrated nitrogenous food yet presented, and consisting of 95 per cent. of assimilable solids of the most nutritious character. This is near enough to perfection, for our purposes.

Maltopepsine.—Tilden & Co. call the attention of the profession to this important remedial agent for indigestion, constipation, dyspepsia, vomiting in pregnancy, loss of appetite, and all forms of gastric derangements, and atonic conditions of the alimentary organs.

The Maltopepsine combines the diastase, pepsine, lactic acid, phosphoric acid, sugar of milk, and other digestive and nutritive properties of the grain, all ready for assimilation.

Abdominal and Uterine Supporters.

—Messrs. Hastings & Garson, Philadelphia, manufacture an assortment of supporters of the womb, with retroversion and anteversion cups.

These cups are sustained by web strips attached to an abdominal belt, all of which are illustrated in their circular—sent free.

Cutler's Inhaler.—This little instrument, which can be carried in the vest pocket, has been marvellously successful in the cure of catarrh, bronchitis, asthma, and other diseases of the throat and lungs. It conveys the healing substance directly to the affected parts, and the mode of application is so simple and pleasant—by inhalation, that a cure of the most difficult cases is assured. Physicians use it in their practice and it has been endorsed by high medical authority.

Inebriates' Home.—This is located at Fort Hamilton, in a park of twenty-six acres, overlooking fine views of the Narrows and New York Harbor.

The Superintendent will respond to letters of inquiry.

A. A. Marks, 701 Broadway, constructing limbs, with rubber hands and feet, enjoys a trade second to none on both continents. Widespread reputation, evidenced by orders recently filled, for the son of the Peruvian President, for a prominent Neapolitan surgeon, and for an attaché of the Japanese Legation.—*N. Y. Sun.*

"I regard 'Colden's Liquid Beef Tonic' as extremely useful in cases of *debility and general depression*, and as an article of food containing *tonic* properties it is highly useful.—A. Jackson, M.D., Professor, Laval University, Quebec."

Dr. J. A. McArthur, of Lynn, Mass., will mail you his pamphlet treating on Syr. Hypophos. Comp., in relation to Consumption and Tubercular diseases, with testimonials, etc., if you will mention MEDICAL ANALECTIC.

79 Washington Place,
New York, Jan. 26, 1886.

The Smith & Shaw Electric Co., 168 W. 34th St., N. Y.—I have used your Closed Cell Pocket Battery daily in my practice, and am highly pleased with it. I find it so portable that I can carry it about in my coat-pocket when making my professional visits, without any inconvenience. My patients say that the current from your battery is more agreeable than that of my large battery of a different make, it being more smooth and uniform. In my hands it has given entire satisfaction and met all the requirements.

Very respectfully yours,
W. H. RICHARDSON, M.D.

"Gluten Flour."—No want is felt to be more imperative than that of a proper food to supplement the treatment of disease. As such, and not as medicine, do Messrs. Farwell & Rhines advertise their Gluten Flour and Special Diabetic Food. They wish their goods to stand on their merits alone, and specially desire your trial and approval. If you are unacquainted with them and desire it, and mail them your address, they shall be pleased to send, through an order on their Agents, if on sale near you, or if not, direct from their mills, if you are willing to pay express charges, a six-pound package without charge. Should you conclude to order a barrel or half barrel by freight, which will be economy, they will make a discount of one dollar per barrel. Beware of spurious imitations. See their advertisement on another page.

"Cod-Liver Oil with Hypophosphites."—As a nutrient means of checking and repairing bodily waste, and remedying disease of the throat, chest, and lungs, "Scott's Emulsion" has long held the foremost rank among preparations of cod-liver oil for the last fifteen years. The certificates of some of the most eminent physicians and analysts in Europe and America, in both of which countries it is widely esteemed by the profession and the public, attest both its efficacy and its chemical purity.—*Townsend's Quarterly Epitome.*

THE MEDICAL ANALECTIC

A
MONTHLY EPITOME OF PROGRESS IN ALL DIVISIONS OF
MEDICO-CHIRURGICAL PRACTICE

EDITED BY
R. W. AMIDON, M.D.

VOL. III., No. 3.

March, 1886.

WHOLE No. 27.

LEADING ARTICLES.

Sturgis on Recurrent Headache in Children, and its Treatment.—It is not uncommon to see children complaining of headache, whose general health is apparently good. Such children usually are troubled with headache more or less severe, recurring at intervals of days or weeks, and each attack lasting from a few hours to a day or more. You will generally find that the child has been subject to these headaches for a year or more before treatment is sought for this particular symptom. As a rule, it will be noticed that the patients are of nervous temperament, that they do not sleep well, that they grind their teeth at night, and frequently suffer from bad dreams and nocturnal terrors. Frequently these children will have a spasmodic cough, particularly at night, even if there be no signs of pharyngitis or laryngeal irritation to account sufficiently for such cough. It may be noticed that the child has difficulty in keeping its hands quiet, that if told to keep standing quietly it will constantly change its weight from one foot to the other. In temper the child is apt to be fretful. Nothing particular is to be noticed about the face with the exception of a peculiar heavy expression about the eyes. This expression is noticed in people with migraine, and also in any depressing illness. Dr. Warner, after careful examination, thinks this expression is due to lack of tone in the orbicularis palpebrarum, giving "an appearance of flabbiness about the lower eyelid; the skin hangs too loose with an increase in the number of folds, and in place of falling neatly against the lower eyelid as a convex surface, it falls more or less in a plane from the ciliary margin to the lower margin of the orbit, a condition often best seen in profile." This heavy expression about the

eyes is not noticed in all cases of recurrent headaches.

These headaches generally come on in the morning, though the child may be perfectly well on going to bed the night before. The pain is generally localized in some particular part of the head, either side, frontal region, or vertex. The pain is severe, during the seizure, usually preventing study or play. It is not unusual for there to be optical illusions of sparks, or bands and spots of color. There may or may not be nausea during the attack. The child generally feels cold, and in winter prefers to lie near the stove huddled up in a chair.

The picture is very like that of migraine in the adult, with this difference: the pain is more apt to be across the forehead, and may be at the base or at the vertex of the skull; there is rarely vomiting or nausea with the attack, and such attacks seem to yield to a treatment which is of very little use in hemichrania of the adult.

Dr. Eustace Smith, in his latest book, considers the headaches identical with migraine. Dr. Warner is inclined to think that these recurrent attacks are but a mild form of chorea. It has been shown by Dr. Hughlings Jackson and by Dr. Herman that in cases of chorea about seventy-five per cent. of the children suffered from recurrent headaches.

Since 1882 I have seen sixteen cases of recurrent headache. At first I spent a long time unsuccessfully in trying to relieve the patient by attention to diet and hygienic surroundings, by general tonic treatment and the exhibition of citrate of caffein and guarana. At last, remembering what Niemeyer calls the "fanciful hypothesis of Du Bois-Reymond and Möllendorf," that the pain may be due to excitement of the terminal sensory filaments of the fifth pair by dilatation of capillary

blood-vessels of the dura mater, I thought I would use ergot for its effect on the circulation through the arterioles. The results have been highly satisfactory. The longest time required to free a patient from the attacks has been four weeks. In one case two doses of ergot gave relief.

It has been my practice to give ℥ x. of the fluid extract three times daily after meals, and to continue the treatment for two weeks at least after disappearance of pain. I generally have used ergot alone, but in one case combined it with iron. Dr. Eustace Smith¹ uses strychnine in combination with ergot. I give below four typical cases. Cases I and III were brother and sister; they were both rather tall children for their ages, had the heavy expression of the eye extremely well defined. Their mother, when a child, suffered from recurrent headaches, but had "outgrown" them. The pain in these two cases was across the forehead. Nervous symptoms were not well marked in these two cases. Case II had pain in the right side and was decidedly a nervous child. Case IV had his attacks at night with pain at the vertex, and did not respond quickly to treatment. In no cases could abuse of tea be held responsible for these headaches.

CASE I. L. B., age thirteen, first seen November, 1882. She is a tall, well-nourished girl, rather anæmic in appearance. Lives in a nice sunny house in a good neighborhood. She began to complain of headaches about three years ago, but they did not recur with sufficient frequency to make it worth her mother's while to have them especially treated. Now she has a headache as often as three times a week, lasting generally from when she gets up in the morning till when she goes to bed at night. During the attack of headache she never has nausea but frequently sees sparks of light or spots of red. Nothing but slight astigmatism was detected on examination of the eyes. Suitable glasses were provided without diminishing the frequency of recurrence of headaches nor their severity. I kept her for some time under general treatment, using tonics, sedatives, etc., and also using specific remedies for headache, such as guarana and caffein till January, 1883, when I began the use of ergot, ℥ x. fluid extract. Improvement was marked in a few days, and she remained free from

headaches till the following October, when a course of ergot again relieved them, and she has continued free from them since.

CASE II. J. S., age eight years, March, 1884. A small black-haired fidgety Irish girl, not anæmic, well along in her studies, and very ambitious, fond of school and of playing out of doors. I had seen this same child before when suffering from headache, due, I thought, to the abuse of tea. On my advice she gave it up and had not taken any for about three months, when I saw her in March. She complains solely of headache coming on about once a week and lasting not more than twelve hours at a time. There were no signs of chorea in her case, with the exception of her unwillingness to stand still for more than half a minute at a time, when I was talking to her, and a moving about of her hands, which, however, was under control of the will. Nothing abnormal in eyes. After two weeks' treatment she was relieved of her headaches, and her mother told me about a month ago that she had had no return.

CASE III. F. B., age eight years, June, 1885. A brother of Case I, complains of the same headaches that his sister used to have, the pain in the frontal region as with her. Has very much her appearance, the heavy expression of the eyes being particularly well marked. Appetite is fair. The attacks in this boy come on about once a month, and last one or two days at a time. He has nausea towards the end of his attack of headache. Urine normal. The present attack disappeared after three doses of ergot, which, however, was exhibited for two weeks longer. He has not suffered from headaches since.

CASE IV. I. M., age eleven years, November, 1885. An Irish boy fond of play but not of school. General health all that can be desired. He is free from headache during the day, but at night is waked up by pain across the vertex. He thinks the attacks last about one hour and then pass off, to recur again perhaps before morning; he has generally two bad nights each week. This case was examined with great care but nothing abnormal detected in the eyes, nothing wrong about the urine, and no reason to make a diagnosis of cerebral disease. His headaches gradually disappeared after continued use of ergot for four weeks. He is now free from his pain.—*Bos. Med. and Surg. Jour.*, Feb. 11, 1886.

* "Disease in Children," 1884.

Sutherland on the Premonitory Symptoms of Insanity.—It will be my object, in the time I have at my disposal, to describe as briefly as possible the most important premonitory symptoms of insanity, and to conclude by making a few remarks upon their treatment.

Esquirol recognized three distinct stages of insanity. In the first, there is a change of habits; in the second, perversion of the affections; and the third constitutes true insanity. The first set are usually seen only by the relatives of the patient; the second, by the family-physician; and the third, by the asylum-superintendent, when they are now so far advanced that any attempt at prophylactic treatment is out of the question.

It is almost impossible to say from the premonitory symptoms what form the insanity will assume, unless, indeed, the patient have suffered from a previous attack. Almost all authors agree, however, that insanity rarely commences with excitement. As an exception, may be mentioned the mania which is produced suddenly, after a moderate amount of alcohol, in a person who has previously sustained an injury to the head, or has had a sunstroke. But the majority of cases are preceded by a stage of depression, which has been called by Guislain the "*stadium melancholicum*."

To estimate the duration of these premonitory symptoms is, as a rule, impossible, as the relations of the patient, either from deficiency of experience or from a wilful perversion of the truth, only throw obstacles in the way of the practitioner, who is trying his best to get at the real etiology of the case.

From a long experience of such matters, I have no hesitation in saying that, in my opinion, some eccentric act on the part of the patient, done many years before the actual outbreak of the mental disease, can be detected in the majority of cases, if the early history of the patient be only carefully investigated.

Irritability and a tendency to take offence are very common at this stage, sometimes accompanied by moroseness and silence, or again by noisy scolding and fault-finding with servants. There may be an indifference to usual employments, or, on the other hand, a restless pursuit of novel occupations. Delusions of suspicion and jealousy are now developed against those with whom the patient has always lived on

good terms. And it must be remembered, in sifting evidence, that there are occasionally good grounds for these delusions.

Sometimes the patient thinks he is ruined, and again he may launch out into endless extravagance, giving orders for carriages and horses which he will never be able to pay for.

Loss of memory is also a very marked symptom. A patient will remain seated in your consulting room much longer than is necessary, and long after you believe the interview is concluded. He will get up in the night, and think it is the morning. He will take three or four hours to dress, owing to his performing parts of the toilet more than once, and forgetting that he has done so. He will eat voraciously, or he will neglect to take his food, simply from loss of memory.

The mental and the bodily symptoms now begin to act and to re-act upon one another. Through forgetfulness, the patient neglects to take exercise, and to attend to his bowels, and through the stagnation and constipation thus produced an increased feeling of malaise and depression comes over him. A general neglect of personal appearance will not escape the eye of the expert practitioner. The expression of the face is also strangely altered, the lines of the features becoming more marked in melancholia, but obliterated and dim in epileptic cases. In acute hysterical mania, and in puerperal insanity, the cornea becomes bright, prominent, and staring. But, on the contrary, in masturbating insanity, the patient seldom looks you in the face, and, when he does so, there is an absence of that expression of the sympathetic eye of De Quincy, which is so eloquently characteristic of a healthy mind. A row of paupers at work on a road can thus be distinguished from a gang of lunatics. In the one case they will all "catch your eye," as you drive past; in the other case they will not.

A word as to bodily symptoms. The posture, and even the gait, of an insane person is abnormal. The skin, as a rule, is harsh and dry, although sometimes perspiring. It emits, in some cases, a peculiar odor, although this has been denied by the highest authorities. Occasionally rigors, feverish heat of skin, and elevation of temperature, are noticed, which, however, are usually due to some accompanying somatic condition, the cuticle

being, as a rule, dry or clammy. The tongue is usually white and coated, and the breath offensive, from refusal of food and neglect of the bowels, which are, at this stage, almost invariably confined. The appetite is generally deficient from want of fresh air and exercise, and from constipation. The circulation is commonly feeble at first. The pulse is either slow (50 to 60) or too rapid (120), in delirious cases.

Generally speaking, the face is pale, but in very rare cases there is great congestion of the head, heat of the scalp, and throbbing of the carotid and temporal arteries. Headache is a very common symptom. This is produced partly by the changes, functional or organic, which are going on in the brain and its membranes, partly by the presence of an excess of bile in the system, due to the neglect of his health on the part of the patient, and also from a condition either of plethora or of anæmia, local or general, in the head and whole system.

Sexual appetite is in abeyance in some cases, as in those of bilious melancholia. It is in excess in others, as in those of general paralysis, and, oddly enough, is conspicuously so in senile dementia. The maid-servant is frequently found to be pregnant by the master, before any mental aberration is discovered by the relations, in this form of mental disorder.

The catamenia are frequently suppressed, although many attacks occur and run their course without any abnormality being observed in this function.

Impairment of some of the special senses, real or imaginary, is sometimes noticed. Deafness is occasionally simulated. Real abnormal sensations of heat and cold, of pricking and electrical shocks, of attempts to shake the bed of the patient, and of irritation, referred to the ends of the fingers and toes, are also frequently noticed.

The voice of the patient is almost always altered, becoming low and almost inaudible in the stadium melancholium, but high in pitch, should mania be developed. Sometimes the patient talks more rapidly, sometimes more slowly and deliberately, than usual. Sometimes he will raise his voice and shout; in other cases, he will speak only in a whisper, or not at all.

Articulation is rarely affected, excepting in general paralysis. The style of conversation is, however, often changed, oaths and obscene language being uttered by

those who were never previously known to be guilty of such conduct. Muttering and talking aloud to the patient's self is frequently noticed.

Not unfrequently the patient will roam about the house, or wander away from home on an objectless journey. One patient, now in my asylum, walked barefooted from London to Portsmouth, before admission, under some religious delusion.

Delusions, illusions, and hallucinations are, however, comparatively rare during the premonitory stage. When they are developed the disease may, as a rule, be pronounced as being insanity, and all prophylactic treatment is now useless. The ship must go before the wind, and you must steer it, as best you can, through the tempestuous course which will lead to recovery, to death, or to hopeless dementia.

A word, if I am not trespassing too long on your valuable time, as to treatment prophylactic, medical, moral, and hygienic.

1. *Prophylactic.* If a patient have been known to have an attack regularly every year, which is not uncommon, send him for a trip with an expert and agreeable medical man, a month before the time of the onset of the mental disorder is expected. This frequently not only staves off one attack, but sometimes even prevents an accession of future attacks. But if the slightest premonitory symptom should exist, keep him at home, as he must undoubtedly undergo the course of the disorder, and it is extremely dangerous that he should do so, if far away from good medical advice.

2. *Medical.* Bromide of potassium, or chloral, or belladonna, may be used where there is heat of head or sexual excitement. Opium and morphia in anæmic cases. Judge by the condition of the pupil whether opium or belladonna be indicated. Antimony is the sheet-anchor in violent cases. Do not add digitalis. Calabar bean is indicated in the early stages of general paralysis. Iodide of potassium and mercury often allay excitement, when the mental symptoms are due to some syphilitic taint.

Hydrocyanic acid, with or without the bromides, is useful in robust cases of mania.

Henbane, in my hands, has proved a disappointing remedy. It is feeble as a sedative, and only valuable as such in large doses, such as half an ounce of the tinc-

ture; and even in small doses it often produces headache.

Combinations of drugs are invaluable, such as chloral with bromide of potassium, chloral with the liquor morphiaë bimeconatis, bromide with cannabis Indica, in acute mania; bromide with ergot, in recurrent insanity; morphia with assafoetida, in hysteria.

Conium is useful where there is much motility; quinine in intermittent insanity; and sumbul or chloral in the status epilepticus.

Aperients are almost always required in the early stages. The milder purges are, as a rule, indicated. These are: Æsculap and Hunyadi János waters; granular effervescent citrate of magnesia; stewed prunes, oranges, and similar domestic remedies. In extreme cases, enemata are necessary, which must sometimes be administered daily, and, if there be no obstruction, croton-oil. Avoid pills, as the patient, if suicidal, will hoard them up, and then take a poisonous quantity.

Should medicine be refused, a subcutaneous injection is occasionally useful, but I prefer disguising my remedies. Chloral in beer or port-wine, tincture of opium in coffee, antimony in any liquid (as it is tasteless); and, as regards aperients, calomel between thin slices of bread and butter; syrup of senna in a cup of tea, in lieu of sugar; and other similar harmless modes of deception are now allowable.

3. The *moral treatment* must consist of a mixture of kindness and firmness; and, above all things, we must remember that each case requires different treatment.

4. The *hygienic treatment* is obvious. Let the patient walk out daily till he nearly drops from fatigue, and soon all complaints of loss of sleep and want of appetite will cease; and, although the disease may yet have to run its course, the symptoms will be milder, and the outlook more hopeful, than would have been the case if the patient had been allowed to have his own way.

I must apologize for the concentrated form in which I have been obliged to put these remarks. Let us not think that, by treating the premonitory symptoms of insanity, medical men will want for work. As long as human nature, sexual intercourse, and alcohol exist, so long will there be excess; and, in consequence, plenty of work for our profession—whether we endeavor to sound a note of warning to the

foolish, or to alleviate the distress of those who now undeservedly suffer for the sins of their forefathers.—*Br. Med. Jr.*, Jan. 30, 1886.

Milton on Dermatitis Ferox.—The disease to which I have ventured to give the name of Dermatitis Ferox is, in its more developed form, so exceeding rare, that as yet no one to whom the drawing of a case taken at the hospital has been shown has recognized the affection; I therefore thought that a brief description of the complaint, accompanied by the history of a case, might not be unacceptable to the profession.

The outbreak seems in every instance to take the form of one or more scattered patches on the face, hands, or the upper part of the chest, and sometimes on all three together. The patches, at first only reddish, speedily become of a vivid red, mixed with brown, the cuticle turning dry and crumpled, and then peeling off, to be replaced by another layer, which in its turn shares the same fate. Now and then a small part of a patch may ulcerate, but this is an extremely rare complication, and usually the morbid state disappears by the gradual declension of the redness and slow reproduction of unhealthy cuticle, which is also little by little replaced by a more normal covering. There is usually no discharge, nothing in the shape of a scarf or crust. The patches, as a rule, form very slowly, and it is only after a time, and when they have become rather extensively developed, that the health begins to suffer; but in other cases a difference in the process may be noticed in so far that the eruption takes place rather quickly, and that the health fails within a few days after its appearance. Sometimes, when the disease attacks the side of the face in the male, firm crusts will form, so that at the end of a week the case looks like one of rather advanced erythematous sycosis. Such crusts may crack, and under the lens small spots can be seen, which look as if thick serum were exuding from them, but in the early stages at least there is no weeping, as in eczema. The site of each crust is surrounded by a red inflamed ring, much broader than is seen round a sycosis patch, which is also infinitely slower in forming. In every case which has yet come under my care the affection of the skin has shown itself first, and the constitutional disturbance later, sometimes much later.

The patches are in general quite isolated, and at first not very large, the predominating shape, if any thing with such an irregular outline can be said to have a shape at all, being a ragged oval. Usually they are, as stated, of a lake color, and this seems to betoken a milder phase; in two cases, where the hue might very fitly have been compared to carmine, the constitutional disturbance was out of all proportion to the extent of skin affected. After a time, and particularly when they are seated on the face, two or more patches gradually fuse, and take on a dark, angry hue, which gives the part the look of having been burnt with fire. Now and then they assume a papular form, and then resemble flattened, aggregated lichen spots; these appear to be overlaid by a cuticle not unlike the horny covering of lichen. On other patches the cuticle, after taking on a brown crumpled look, is cast off, as in the rising stage of eczema. In a third set of patches the scarf skin may be fairly adherent.

The constitutional symptoms point to much and often grave disturbance of the health. General uneasiness, feeling of being unwell, sometimes of the system having taken the alarm, loss of appetite, nausea, headache, inability to walk straight, and prostration, are perhaps the most prominent among the many signs which arrest the attention of the practitioner.

It will thus be seen that, while the affection in some features resembles acro-dynia and erysipelas, it is yet distinct from both. It runs a much slower course than either, and in it the constitutional symptoms come on much later. The phlyctænæ, pustules, œdema, and perspirations of the former are wanting. When it attacks the face it is accompanied by none of the swelling and closing of the eyelids which so distinctly mark erysipelas. It is sometimes attended, too, by the formation of huge bullæ at a distance from the chief site of active disease. Though, perhaps, in this complaint the skin is just as much poisoned by the air as it is by the aniline and arsenic dyes in a case of glove or sock poisoning, yet we do not find the sudden swelling, heat, tenderness, and subsequent discharge of serum seen in the latter affection. On the contrary, every one of these symptoms may be absent; indeed, redness and exfoliation are usually the sole local signs. But while I never saw much inter-

nal disturbance, and particularly internal disturbance culminating in delirium, from the aniline-dye affection, I have met with both under a very pronounced form in this kind of dermatitis. And no form of poisoning of the skin which I have either read of or seen, or any variety of erysipelas known to myself, is ever followed, as dermatitis ferox sometimes is, by a raised, fused, red, papular eruption. For all such reasons the latter seems to me a distinct individual complaint.—*Edinburgh, Med. Jour.*, March, 1886.

Archer on a Case of Abscess of the Spleen, Occurring in Enteric Fever.¹

—On assuming duty at Netherfield Fever Hospital towards the end of last month, I found a boy, age fourteen years, suffering from what appeared to be an intercurrent relapse or recrudescence of enteric fever. He had been admitted to hospital on Oct. 5, 1875, under the care of my colleague, Dr. Dunbar, with a history of illness of two days' duration, which commenced with anorexia, vomiting, and rigors. His throat is reported to have been sore, and the tonsils superficially ulcerated. He, as far as I could ascertain, presented none of the common signs or symptoms of enteric fever—in fact, I believed he was sent to hospital as suffering from scarlatina, which was doubtless owing to the slight throat symptoms, and a doubtful evanescent red rash. The temperature, which had been febrile since his admission became normal on Oct. 18th, or about the sixteenth day of apparent illness. It remained normal till Oct. 21st, when it again became febrile, and remained so till the patient's death on Nov. 1st.

Oct. 24th was marked by slight pain along the course of the lower ribs on the left side, which was thought might have been due to pericarditis or pleuritis; however, careful examination failed to detect the existence of either of these conditions. On Oct. 26th the left hypochondriac pain became more marked, and on the evening of the following day there was slight general abdominal tenderness. The next twenty-four hours was marked by vomiting, intensification of the abdominal tenderness, and increased tympanites, especially manifest along the course of the transverse colon. All these signs became more painfully appar-

¹ Read at a meeting of the Liverpool Medical Institution, Nov. 10, 1885.

ent during the next three days, and there was superadded a certain amount of stupor and low muttering delirium. The patient died early on the morning of Nov. 1st, apparently from peritonitis, due, as was thought, solely to perforation of the intestine.

Post-mortem examination made ten hours after death. Fairly marked rigor mortis; considerable emaciation. Abdomen generally and equably distended. Distinct general purulent peritonitis. The omentum and coils of the intestines were loosely held together by layers of yellow puriform lymph. A large quantity of yellow fluid, which had evidently escaped from the intestines, occupied the depending portions of the abdominal and pelvic cavities. The intestines contained some yellow semi-solid fæces. There was a perforation situated about $1\frac{1}{2}$ feet from the ileo-cæcal valve, occupying the base of a cicatrizing ulcer. Several of Peyer's patches were observed to be ulcerated, quite free from sloughs, and evidently in process of cicatrization. The long axis of the ulcers was usually transverse to the course of the intestine, owing, I suppose, to the fact that cicatrization had commenced from each end, and not laterally. There was a mass of almost entirely cicatrized ulceration in the neighborhood of the ileo-cæcal valve. The liver was enlarged and pale. The spleen was enlarged and generally soft and congested; its convex surface was covered by a more or less uniform layer of yellow puriform lymph; in its upper part, and under the surface of its external aspect, was an abscess which would contain a large-sized walnut. This collection of pus had ruptured into the peritoneal cavity. The lungs were found to be hypostatically congested, but otherwise healthy. The pericardium contained a considerable quantity of clear straw-colored fluid. The heart was healthy.

Remarks.—Abscess of the spleen—a rare affection under all circumstances—would appear to be, contrary to what might be expected when we have regard to the fact that this organ is always affected to a greater or less degree in enteric fever, of very infrequent occurrence in this disease. Murchison's vast experience gives only two cases, both of which died, in what appeared to be a relapse, from general peritonitis, and he mentions five others from

different authors. A considerable number of necropsies on the bodies of patients dying of enteric fever at Netherfield Fever-Hospital during the last five years supplies only this single example of splenic abscess.¹ As regards diagnosis, it may be mentioned that in this case the actual condition of affairs, as far as the spleen was concerned, was not determined clinically. But if in another case there were presented for our observation, tenderness in the region of the spleen, pain under the left ribs, and a "creeping" peritonitis gradually extending from this as a centre over the abdomen, the existence of splenic abscess would be suggested to the mind; and further, that the abscess had burst and set up general inflammation of the serous membrane, would be quite a reasonable conclusion to arrive at.

Although the boy was reported to have taken ill only two days before admission to hospital, judging from the condition of the ulcers I am strongly inclined to believe he must have been going about with the fever on him for at least a week before the apparent onset of the disease.

The reappearance of febrile symptoms after an apyrexial state of three days cannot be regarded as a relapse in the true sense of the word, but must be looked upon rather as symptomatic of the splenic mischief, just as in this disease, as well as in any other of the specific fevers, a continuance of the fever beyond the usual time or a reappearance of fever accompanied by manifest local lesions, must be regarded as purely symptomatic.—*Dub. Jour. Med. Sci.*, Feb., 1886.

Finny on Perforating Ulcer of the Stomach Opening into the Left Ventricle of the Heart and Causing Death by Hemorrhage.—Dr. Finny reports an extremely rare specimen of an oval ulcer ($1 \times \frac{1}{2}$ in.) of the stomach, situated on its anterior wall two and a half inches from the cardiac end, and two from the lesser curvature, leading up to and perforating the heart. The floor of the ulcer was the muscular structure of the under surface of the left ventricle, about one inch from the apex; and the ulcer, after perforating the

¹ In November, 1883, Dr. Coates showed at the Calcutta Medical Society a boy, aged four, with enlargement of the spleen, the result of malarious fever. An incision was made into an abscess and about 10 ozs. of pus discharged.—*Brit. Med. Journ.*, July 19, 1884, p. 143.

stomach, had eaten through the diaphragm and the pericardium. The stomach was adherent to the diaphragm round the ulcer, but the adhesions were very slight and of recent data. The pericardial sac had been obliterated by adhesive inflammation, and over the whole of the left ventricle the adhesions were very dense. Through the larger of several interstices between the exposed muscular tissue of the apex a probe could be passed upwards, and was found to enter the left ventricle behind a musculus papillaris attached to the posterior mitral curtain. The patient, a farm-laborer, aged 19, had died of syncope on December 9, 1885, preceded by the passage of blood from the bowels. There was no hæmatemesis. At the necropsy, the stomach and the whole intestinal canal were found full of liquid blood; the stomach alone contained two quarts. The source of the blood was the left ventricle, and it was probable that the blood escaped into the stomach, during both systole and diastole. The fatal steps in the pathological history of the case were: 1, ulcer of the stomach of unknown duration; 2, rheumatic pericarditis and adhesions of the left ventricle to the diaphragm, with obliteration of the sac; 3, recent activity in the ulcer, perforating into the muscle of the heart. The general muscular structure of the heart under the microscope was perfectly normal, and free from fatty degeneration, except the fibres at the floor of the perforation, which were granular and broken down, though free from all fat. This case was not unique, as there were three similar cases recorded in Vienna; the first by H. Chiari in 1880, the second by F. Brenner, and the third by Oser, in 1881.—*Br. Med. Jour.*, Feb. 27, 1886.

Davies on the Chloride of Calcium as a Therapeutic Agent.—Amongst the numerous drugs which from time to time have stood in high repute and then fallen into disuse, and in some cases no doubt deservedly so, may be ranked chloride of calcium, or muriate of lime, as it is called in the older pharmacopœias. It is the object of this paper to show that this drug scarcely merits the treatment which it has received, and I think that its usefulness is not sufficiently known in a certain class of cases. At any rate, I consider that I may safely assert that it is scarcely ever used for the purpose to be described in this paper, as a glandular deobstruent. Thus, in

the most recent text-book of *Materia Medica, Pharmacology, and Therapeutics*,¹ it is stated that "it is occasionally used in cases of chronic glandular enlargement, but that it is not much used in medicine." In Dr. Neale's "Medical Digest" it is not even mentioned for this purpose; whilst Dr. Garrod, in his "*Materia Medica and Therapeutics*," states that "chloride of calcium seems to act upon the glandular system, and that it was formerly used in scrofula." I am, of course, fully aware that this drug, powerful as its influence is in certain cases, does fail to produce its usual beneficial effects in others, and in this respect it in no way differs from other drugs which are much more in use; and I take it to be one of the highest aims of scientific medicine to endeavor to discover the *rationale* of the failure of a drug in a certain number of cases, whilst in others, *apparently* similar, it does so much good.

In the year 1883 there appeared in the New Sydenham Society's series a volume of Warburton Begbie's works, edited by Dr. Dyce Duckworth. Amongst several very interesting papers is one which gives an account of the "Therapeutical Actions of Muriate of Lime." From this article it appears that muriate of lime, or chloride of calcium, was first introduced by a French physician named Fourcroy, towards the end of the last century, in whose hands it met with great success. He was followed in Scotland by Dr. Beddoes and several other eminent physicians, who entirely confirmed the high opinion which Fourcroy had formed of it. The cases in which this drug was found to be so useful were those of scrofula, and striking examples are given in the article quoted of its beneficial action: several others were induced to use the muriate of lime, amongst whom it will suffice to mention Dr. James Sanders of Newcastle, who, in his work on consumption,² published in 1808, says: "I think that I have ascertained that the muriate of lime has a more powerful effect in removing indolent scrofulous tumors than any other substance used as a remedy." It is only fair to state that with other observers this drug failed; still the evidence in its favor appeared so strong to Warburton Begbie that he adopted it, especially in

¹ By Dr. T. Lauder Brunton, F.R.S., 1885.

² "Treatise on Pulmonary Consumption," 1808, Edinburgh.

chronic enlargements of the lymphatic glands in the neck, with a similar condition of the parotid and submaxillary glands, and he was almost invariably successful. Thus, to quote his own words, he says: "It is in my power to assert that many instances of great enlargement of the cervical glands have yielded to its use."

Before passing on to the cases which have come under my own observation, it may be as well to state that the drug was invariably administered in the form of a solution, and as such it appears in the older pharmacopœias: in the Edinburgh as the *calcis muriatis solutio*; in the Dublin as the *calcis muriatis aqua*; and in the London as the *calcis chloridi liquor*. The dose is stated to be from ten to twenty grains, and is usually taken thrice daily. Begbie was in the habit of ordering the drug to be taken in milk (which serves to conceal the unpleasant mawkish taste), usually after meals.

I will now give an account of the cases which have come under my own notice. The first which I shall relate is certainly striking in many respects. It so happened that my father, the late Dr. Herbert Davies, was induced, after reading the article above quoted, to try the muriate of lime in a case which had hitherto resisted all treatment, and as the patient was under observation for some time, I had several opportunities of witnessing the effect of the drug. A. C. A., age thirty-seven, has had enlargement of the cervical, axillary, and inguinal lymphatic glands since childhood; as he grew up the glands gradually, but steadily, increased in size. In 1876 he was ordered hypophosphites, which he took in large quantities, without any effect; he then went to Australia for a trip, in the hope of getting rid of his complaint, and although he returned stronger, yet the glands were unaffected. In 1880, the glandular enlargement in the right axilla had increased to such an extent that he was always compelled to sleep with his *right arm high over his head*; he described the glands as being as *hard as stone*, and as large as two chicken's eggs. In 1881 his voice began to be weak, no doubt due to pressure upon the inferior laryngeal nerves. In December, 1881, he took another trip to Australia, and was absent from England for six months. As he was returning home his voice became reduced to a whisper, and although his general health was improved by the

voyage, the glands were as much unaltered as before. On reaching London he again consulted my father, who ordered him to take the muriate of lime in ten-grain doses, three times a day, in thirty drops of water. After taking this dose for one month, and finding that there was slight, though decided, diminution in the size of the glands, he was ordered to increase the dose by ten drops each week, until the quantity taken reached sixty drops, *i. e.*, twenty grains, and this dose he continued taking for one month. Finding on one occasion that he had taken one hundred drops by mistake, and that he suffered from no ill effects whatever, he continued with this dose, and went even as far as one hundred and twenty drops, *i. e.*, forty grains for a dose thrice daily. During the whole of this time there had been a steady decrease in all the glandular enlargements, insomuch that about three months after he began taking the drug the glands became so soft and reduced in size, that he was enabled to sleep with his right arm by his side. Besides this marked decrease in the size of the right axillary glands there was also a great diminution of the other lymphatic enlargements, especially those in the neck; and it is noteworthy that his voice, which was affected so long after his complaint began, is the last to recover, and, in fact, even now it has not yet completely regained its natural quality. The entire length of time during which he was taking the muriate of lime was twelve months, and during the greater part of it the dose taken was forty grains, or one hundred and twenty grains per diem. It is a striking feature in the case that, during the whole of this time, not a single unpleasant symptom was experienced from taking the drug in such large quantities, with the exception of an occasional scalding sensation which he felt in the morning on passing his water; otherwise he suffered from none of the toxic effects produced by the drug—as described by Dr. Begbie—such as nausea, vomiting, faintness, giddiness, and weakness. At the present time the cervical lymphatic glands have almost gone, while those elsewhere have greatly decreased in size.

The points of interest in this case are:

1. The very considerable uniform lymphatic enlargement.
2. The hardness of the glands, as noted,

especially in those of the right axilla, and their non-suppuration.

3. Their gradual but steady subsidence, under the prolonged use of chloride of calcium.

4. The largeness of the dose tolerated, and the absence of any toxic effects.

The next case is one which I have selected as typical of a class frequently seen in the medical casualty department. A. P., age nine, a delicate-looking child, was brought to the hospital on October 9, 1885. Her mother states that the child had measles when two years old, and that since that time she has noticed "lumps" in the child's neck, which are more prominent at one period than another. On examination there was found to be a general enlargement of the cervical lymphatic glands. The child was put on three-grain doses of the calcium chloride, and with a gradual increase of the quantity of the drug there has been a marked decrease in the glandular enlargements. At the present time the child is taking ten-grain doses of the muriate of lime three times a day, and when seen on November 17th, scarcely a trace of the "lumps" could be detected. It would be easy to quote other similar cases which I have treated with the same results. It will suffice, however, to mention one more case, which is as follows: H. W., aged twenty-seven, ostler; fairly healthy in appearance, says that he has always had more or less enlargement of the glands in his neck; during the last nine months the glands have increased in size. He came to the hospital on July 8, 1885, and was found to have general lymphatic cervical enlargements, and was ordered to take the chloride of calcium in five-grain doses thrice daily; each time that he was seen there was noted a decrease in the glandular swellings, until on August 18th, when he was taking twelve-grain doses, no trace of any lymphatic enlargement in the neck could be found.

Remarks.—From the evidence furnished by the cases quoted above, which as regards the two latter ones, are only examples of several others in whom this method of treatment was equally successful, it will be clear, I think, that chloride of calcium deserves to be ranked as a useful agent in cases of lymphatic glandular enlargements. The first case may be fairly considered to be one of lymphadenoma, seeing that the glands were of a stony hardness and had

never suppurated. Whether this drug is equally useful in other cases of this class I have not at present sufficient data to. The second and third cases were undoubtedly of a scrofulous character, and it is these which form a large item in the medical casualty department. The exhibition of this drug in these cases was almost always attended with beneficial results. It is useful to note to what extent the drug, if cautiously increased, may be tolerated, and learning from the first case the usefulness of this procedure I almost always increased the dose each time the patient was seen. It will be also noticed how much more rapidly the drug acted in the latter cases than in the former, where it required to be taken for twelve months before there was great subsidence of the glandular enlargement under its effects. This entirely bears out the statement made by Dr. Warburton Begbie, where he refers to cases in which not only were the cervical glands enlarged, but those in the axillary and inguinal regions. He says: "Muriate of lime in such cases requires to be taken for a considerable time—for weeks, it may be even months—before its beneficial effects are produced; usually, however, in the course of a few weeks, there occurs a certain degree of softening in the glandular tumor." Again, he points out the necessity of taking the drug with regularity for a considerable period after the entire disappearance of the cervical fulness, "as he had observed in some instances a tendency to the recurrence of the glands." Finally, experience has taught me that chloride of calcium fails entirely in those cases of scrofulous diathesis where suppuration has already commenced. In these cases it is quite useless, and this again is confirmed by Dr. James Sanders, who says that "the muriate of lime has a more powerful effect in removing indolent scrofulous tumors than any other substance, used as a remedy, but that when they become open sores, it is almost useless."

In the application of this drug, therefore, three points should be borne in mind.

1. The necessity of a cautious but gradual increase in the strength of the dose taken.

2. The steady persistence in its use for a lengthened period.

3. Its uselessness in cases where suppuration has already commenced.—*The Practitioner*, Jan., 1886.

Bonavia on Experiments with the Decoction of Lemon and other kinds of Citrus, with Reference to Similar Experiments.¹—The decoction of lemon and other citrus in these experiments was prepared in the way pointed by Dr. Maglieri. It was given only once a day, early in the morning, on an empty stomach.

1. *Decoction of Lemon* (Malta lemon or Italian lemon, *citrus limonum vulgaris*, of Risso).—Eighteen cases of simple quotidian fever were treated, among native prisoners and policemen. They were cured in from three to eleven days. One case of quartan fever was cured in ten days. One case of enlarged spleen, of six months' standing, was cured in twenty-six days. Three cases of quotidian fever, with enlarged spleen. The fever was cured in from six to nine days, and the spleen reduced and softened. In one of these cases the fever returned, and it is not improbable that this man got a fresh chill when still weak, as Hindoos have to undress when they cook their food. Two cases of large spleens, of two and one year's standing, were under treatment thirty days; and one case of much-enlarged spleen, of one year's standing, was under treatment for sixty days. The spleens of all were much reduced. These three cases were among prisoners, who had to be released by a certain date.

2. Decoction of a variety of large oranges, which natives of India call "*Khatta*" (meaning sour). One orange was used with double the quantity of water, boiled down to one third, and given half to each of two patients. Seventeen cases of simple quotidian fever were cured in from three to twelve days. One case of tertian was cured in seven days. Three cases of enlarged spleen were cured in from twenty-seven to thirty days. One case of same, fifteen days under treatment, and one case of same of two years' standing, and thirty-five days under treatment—released with their spleens much reduced. (NOTE.—In spleen cases, its original size was marked on the skin by a black line, so that it was easy to observe its reduction.) One case of ague and enlarged spleen was under treatment sixty days. The fever stopped early, and the prisoner was re-

leased with his spleen much reduced. One case of weakness and want of appetite after fever was cured in five days.

3. Partly "*Khatta*" and partly lemon decoction, the supply of the former having been exhausted. Four cases of simple quotidian fever were cured in from four to five days. One case of enlarged spleen was cured in nineteen days. Four cases of ague and enlarged spleen were under treatment from six to twenty-one days. The fever stopped, and the spleen was reduced and softened. Four cases of very large spleen, treated with decoction of lemon, in the Charitable Dispensary were unsatisfactory. The reason is not far to seek. They were the worst cases—one of them with an enormous spleen, which, he said, he had for ten years. Natives, when free, will not submit to any prolonged treatment. In the jail hospital I had a better opportunity of testing the value of these remedies, as the patients were under lock and key, and the treatment was only given up on their release. In the police hospital the patients could not be kept long under treatment. The hospital was full, and as soon as the men were fit for any duty they had to be discharged, to make room for new patients.

4. Seville orange decoction (marmalade orange, *citrus Bigaradia vulgaris*, of Risso). Of this sour orange I had only a limited supply. I used half an orange (large size) for one dose, prepared after Dr. Maglieri's method. One case of enlarged spleen was thirteen days under treatment. The spleen was reduced and softened.

5. Decoction of limes (*citrus acida* of *Roxburgh*, like that of *Montserrat*). Besides the foregoing experiments, I made others among private patients with the decoction of limes, taking three limes for a dose, and prepared as before. The cases were weakness and want of appetite after fever. The result was equally satisfactory. Those who tried both the decoction of lime and lemon say the latter is nicer to take. Both the decoction of lime and of "*Khatta*" orange, when reduced to one third by boiling, leave a more mucilaginous liquid than the lemon decoction. I think the foregoing experiments are sufficiently satisfactory. The conclusions I draw from them are the following:

(a). For simple intermittent fever, without any other complications, the decoction

¹ *Vide* Experiments by Dr. Maglieri and Dr. Laughlin, "Braithwaite's Half-yearly Retrospect of Medicine" for half-year ending June 30, 1885, vol. xci., p. 15.

of lemon and of the "*Khatta*" orange is as good a febrifuge as quinine, and acts with rapidity, even in tertian and quartan fever.

(b). In cases of weakness and loss of appetite after fever, the effect is even more quickly developed. It shows itself after the second dose, improving the appetite and digestion, and diffusing vigor through the nervous and muscular systems. I tried three kinds of sour citrus in such cases, and they appear equally good.

(c). In cases of *recently* enlarged spleens, even when of three or four months' standing, these decoctions (excepting the fluoride of ammonium, which is equally good) are the *best splenifuge* I am acquainted with.

(d). When the spleen is *very* large, and of *years'* standing, it takes a prolonged treatment to reduce and soften it. In such cases, probably neither the decoction of citrus, nor any other remedy known, will make it entirely disappear—that is, reduce it to its normal size. To test the value of these decoctions in very large and old spleens, such as we often see in the natives of India, it would require that the patient should voluntarily submit to the treatment for some years.

It would appear that we have in the genus citrus a remedial agent for intermittent fevers and their consequences, of much potency. If chemists could be induced to take up the subject and endeavor to extract the medicinal principle in some cheap form, a new departure in febrifuges and splenifuges might be brought about. The raw material can be grown everywhere, and at the present time, owing to competition and low prices, it is said that the fruit is allowed to rot on the trees in Sicily, because it does not pay the growers to pack and ship them to other countries. Here is a grand opportunity for utilizing such wealth of raw material, and work it into some cheap form of portable and durable febrifuge. Probably it would not only utilize the super-abundant fruit of the world, but would give a new start to manufacturing chemists, and a new market for oranges and lemons. It would be interesting to find out whether this medicinal agent exists ready-made in the fruit, or is brought out by the boiling citric acid on the essential oil and bitter principle of the rind; whether it exists only in some citrus, or in all the fruit of the genus; whether it also exists in the leaves, bark, and wood of the trees,

and so forth. It appears a remedy of so much value that I hope some one may be induced to take up the subject, and work it out. All the foregoing experiments were made with the *fresh fruit* taken from the tree.—*Provincial Med. Jour.*, March 1, 1886.

The Local Therapeutical Value of Lactic Acid.—We noted in our Retrospect for 1885 that lactic acid had been freely used in Germany during the latter part of the year as an escharotic in a number of local disorders. The subject appears to be of sufficient importance to warrant a detailed notice. The drug was brought before the Royal Society of Physicians of Vienna in November last, by Professor Mosetig, and it is from his paper on the occasion that the following is condensed: According to him lactic acid is destructive of pathological tissues, whilst its effects upon healthy structures are far less marked, and generally not noticeable at all. When applied to fungous spots or patches of lupus the diseased tissues were destroyed, whilst the healthy were untouched. Lactic acid takes the place of Volkmann's spoon in many cases. In inoperable fungous disease of bone, and infiltration of bone by carcinoma, lactic acid gives good results. Prof. Mosetig has applied it superficially, and also injected it into the parenchyma. In the first case he applies the ac. lactic. pur. directly to the fungous, lupous, and carcinomatous ulcers. It is best applied by soaking a piece of lint the size of the ulcer in the preparation and laying it on. No superfluous moisture must ooze from the lint. This is to be covered with a water-proof covering to prevent absorption from the lint. This may be occasionally exchanged for a freshly prepared paste of lactic and silic acids, which is to be spread on impervious paper to the thickness of the back of a knife. For protecting the neighboring parts fat or collodion may be used. If Prof. Mosetig is not perfectly certain of the soundness of the neighboring surface, he uses no protective, but allows the acid to play freely on the adjoining skin or cicatricial tissue. This never does any harm; at the most it simply irritates the parts. For parenchymatous injection he employs an aqueous solution of from 50 to 70 per cent., of which he injects from $\frac{1}{4}$ to 1 grm. In large patches of disease two to three syringefuls may be injected. For the sake of conve-

nience he allows the dressings to remain on twenty-four hours, as although the application generally causes rather sharp pain, and the duration of the pain probably indicates the duration of the activity of the drug, it might appear more rational to remove the dressing when the pain ceases. After removal of the dressings the part is bathed with warm water and the spot covered with rubber paper. Fats are to be avoided, as they diminish the activity of the acid, if they do not destroy it altogether. Before a fresh application, twenty-four hours at least should elapse; it is best of all to wait until the slough is cast off, and during the interval dress only with water and rubber paper. Dr. Mosetig presented two cases treated by him with lactic acid. The first, a workman, aged 55, had in June an epithelioma of the right temple a square centimetre in size, passing over to the external angle of the eye. The margins of the ulcer were hard. The lactic acid was applied 26 times superficially and 4 times interstitially (50 p. c. solution). For 14 days no more lactic acid had been applied, but the granulations had been twice touched with lapis. The infiltrated parts of the eyelid were removed with the knife. *Result*—The whole of the surface formerly ulcerated, with the exception of a small healthy granulation, was cicatrized, the cutaneous edges soft and smooth. The second case was that of a woman, aged 69, whose disease began four years ago with a rodent ulcer commencing on the cheek. It destroyed the whole cheek, as far as the upper lip downwards to the border of the masseter externally, to the bridge of the nose internally, and attacked the orbit upwards. The bulb had to be extirpated, and with it a portion of the upper eyelid. Twenty superficial applications were made, and the border on the bridge of the nose was removed with the thermo-cautery. The whole of the granulations on the upper maxilla, lips, and orbit were soft and healthy, and cicatrization was commencing at the edges. A discussion took place after the reading of the paper, in which Professors Weinlechner and Dittel and Drs. Roth and E. Schiff took part. All had tried lactic acid in various affections. They were not, however, by any means so enthusiastic about it as Professor Mosetig. Dr. Roth had used it in various tuberculous affections of the larynx, but he could not verify any amelioration of either the

subjective or objective symptoms. Prof. Dittel had not met with success in its employment.—*The Med. Press and Circ.*, Feb. 10, 1886.

MEDICINE.

Fiedler on the Treatment of Trichinosis.—Lead by the observation, that, while making microscopic preparations, trichinæ and their embryos are shrivelled up and killed as soon as they come in contact with glycerine or its strong solution in water, the author has given animals trichinous meat and then glycerine as an antidote with apparently good results. Since then he has treated very mild cases of trichinosis in this way, and very lately Merkel has published similar cases.

In bad cases he recommends tablespoonful-doses of pure glycerine until 150–200 grammes have been taken. Larger doses, he thinks, might cause hemoglobinuria or other toxic symptoms. It would be best to administer it in pills or large capsules, keratin-coated, to prevent the dehydrating effect taking place before the small intestine is reached. To heighten the dehydrating process, the author gives large amounts of alcohol and a dry diet. An enema of glycerine and water is thrown high up into the rectum and allowed quickly to run out. Before all these therapeutic procedures a brisk purge is given. (*Deuts. Arch. f. klin. Med.*, xxxvii., Heft 1 and 2.)—*Cent. f. d. Med. Wissen.*, 30 Jan., 1886

Musser on Tubercular Meningitis.—From observations on thirteen cases during six years the author concludes that *tubercular meningitis* may be considered a disease (1) of frequent occurrence, in the middle and lower classes especially; (2) more frequent than other localizations of tuberculosis, except the pulmonary; (3) and much more frequent than other varieties of meningitis.

That the *predisposing causes* are age, and a hereditary tendency to tuberculosis. That the *exciting cause* is a focus of infection, inflammatory or "cheesy," which can almost always be found in some part of the body.

That the premonitory symptoms of note are emaciation, fretfulness, gastro-intestinal disorders, irregular fever, and headache. That the symptoms of the fully developed disease, worthy of note, aside from head-

ache, spasms, and palsies, are purulent conjunctivitis; erythema, and other vascular changes of the skin; an offensive breath; the scaphoid abdomen; irregular fever and alterations in pulse and respiratory rhythm. Vomiting and constipation were not marked phenomena in the cases of the series. The expression of the face and the decubitus of the patient did not differ from the usual accounts. That the premonitory symptoms may be absent entirely or of very variable duration.

That the symptoms of the first stage continue six days (average); of the second stage, four and one half days (average); and the entire duration lasts on an average ten days.

We have learned further, from the above observations, that the diagnosis can be made by attention to the following points. The age; the hereditary tendency; the presence of a caseating focus or the history of a disease likely to produce such a focus; the presence, in addition to cerebral symptoms, of two or more groups of the symptoms detailed in the preceding summary, and the appearances of the eye-ground.

He is aware that these conclusions differ, in many respects, from those presented in the text-books. They are deduced from the above series, and are believed to be substantially correct. It is to be regretted that no light can be thrown on the interesting relations of the tubercle bacillus. These studies were made before its discovery, however.—*Med. News*, Feb. 20, 1886.

Carpenter on the Influence of Chronic Bright's Disease on the Safety of Anæsthetics.—The object of this paper is simply to emphasize a precaution to which attention has already been directed, namely—that the existence of chronic Bright's disease diminishes the safety of the patient to whom sulphuric ether is administered as an anæsthetic.

Surgeons have long recognized that chronic renal disease materially influences the results of operations, and to such an extent that every well-informed surgeon approaches with very great apprehension all operations which become necessities in patients whose urine has persistently contained albumen and casts. Sir James Paget has said, and to this Dr. Norris has referred—"Never perform an operation, except under something like compulsion, on a patient whose urine is constantly albuminous."

But the same attention has not been given to the question of the influence which chronic renal disease exerts on the safety of administering anæsthetics, especially sulphuric ether.

Anæsthetics in Bright's disease of the kidneys. Dr. Norris reports two cases of death supervening after cataract operations, and they had four features in common: 1. Both patients were anæsthetized with sulphuric ether. 2. They entirely recovered consciousness. 3. They died comatose, one in a few hours and the other eighteen days after the operation. 4. In both cases careful autopsies revealed no organic lesion except Bright's disease of the kidneys. He says, "In my opinion both deaths were due to the same cause, namely, the congestion caused in already diseased kidneys by the administration of ether."

I wish to add two cases to those which have been reported.

CASE I.—On November 24, 1885, I superintended the post-mortem examination made on the body of a middle-aged woman who had been operated upon for recto-vaginal fistula. I was also told by one of the house staff that the patient had had a small quantity of albumen in her urine. Ether was administered with the precautions usually observed in large hospitals, and the patient, without special warning, died upon the table just before the operation was completed.

Autopsy twenty-four hours after death. **The heart:** The left ventricle was contracted, its wall hypertrophied, its cavity empty, and its valves normal. The wall of the right ventricle was relaxed, its cavity was empty, and the valves were normal. Microscopical examination of the muscular fibres revealed that they were substantially normal, only occasional pigment granules being present.

A small quantity of dark-colored watery fluid could be pressed from the cut surface of the lungs; the bronchial tubes contained a small quantity of reddish frothy fluid, and the trachea and larynx were unobstructed.

The liver was enlarged and fatty. The spleen was increased in size and was dark-colored.

The prominent lesions were found in the kidneys, which were increased in size, the capsules were adherent, the cortices were thickened and pale, and the pyramids were of a deep red color; the pelves and the

ureters were normal. Microscopically, they showed the lesions of chronic diffuse nephritis; the intertubular connective tissue was increased, the capsules of the glomeruli were thickened, the tubules were either empty or contained swollen and granular, or broken down and fatty epithelia and casts; the blood-vessels were distended with blood.

In estimating the cause of death in such cases, the fact must not be overlooked that all surgical operations, as a rule, are attended by more or less shock, varying in degree from the slight and transient to the profound, from which the patient never rallies. But here the surgical procedure did not belong to the class regarded as severe operations, and the loss of blood was what is usually regarded as insignificant.

These remarks, so far as shock and loss of blood are concerned, are applicable to the next case.

CASE II.—On January 1, 1886, I was invited to examine the organs removed from the body of a middle-aged, powerfully built man, who had died eight hours after the administration of ether and the performance of a safe operation.

Two weeks previously this man had been operated upon under the influence of ether, and had, within the usual length of time, passed from under the influence of the anæsthetic without the appearance of any unfavorable symptoms.

After the second operation he apparently rallied completely from the ether, and felt comfortably in bed. At the end of eight hours he got up, went to the water-closet, returned to his bed, was soon heard breathing peculiarly by the other patients, who gave an alarm, but before any medical attendant could reach his bedside he was dead.

The autopsy was performed thirty-six hours after death. Nothing abnormal was found in the brain, except an atheromatous condition of the arteries at the base, a small clot in one of the sinuses, and marked venous engorgement.

The heart weighed twenty-four ounces. There was marked hypertrophy and dilatation of the left ventricle. The mitral valve was incompetent (the orifice admitted three fingers) and there were atheromatous patches about its base. The aortic valves were competent; one cusp exhibited a small vegetation upon the ventricular sur-

face. The wall of the right ventricle was very thin, having been encroached upon to such an extent by fat that the muscular tissue was reduced to about one-sixteenth of an inch in thickness. The pulmonary and tricuspid valves were competent. The aorta was markedly atheromatous. Microscopical examination of the cardiac muscle showed the fibres to be normal.

The liver was increased in size; was firm and red. Microscopical examination showed that it was slightly cirrhotic, and also the seat of a moderate amount of fatty infiltration. The blood-vessels were filled with blood. The spleen was enlarged and firm.

The kidneys weighed nine ounces each. The cortical portion was thick and pale; the pyramids were deep red; the capsule was thickened and markedly adherent. Microscopical examination of the kidneys showed the lesion of chronic diffuse nephritis, with marked congestion of the blood-vessels of the pyramids, and a swollen and fatty condition of what epithelia still remained in the tubules. Many of the tubules contained casts.

From the foregoing I have been led to the following conclusions:

1. Too great care cannot be exercised in examining the urine, both chemically and microscopically, of all patients who are to undergo surgical operations.

2. Chronic Bright's disease diminishes the safety of anæsthetics, especially sulphuric ether, as well as the safety of the operation.—*N. Y. Med. Record*, Feb. 6, 1886.

Marcy on the Use of the Hypodermic Syringe in Typhoid Fever.

At some period of the disease, either through the various complications that may arise in the course of the disease, or perhaps by the exhausting effects of long-continued high temperatures, say from the fourteenth to the eighteenth day, there is apt to be more or less disposition to collapse of the nervous and circulatory systems. I know of no way in which this can be met more readily and successfully than by the administration hypodermatically of strychnia alone or in combination with digitalis.

Even earlier in the disease, when subsultus and to her evidences of prostration make one feel the necessity of using etherial and nervous stimulants by the mouth, I have often found great advantage from the use

of the same remedies hypodermically twice in the twenty-four hours, in doses which would seem almost hazardous. I have frequently given from the sixteenth to the twentieth of a grain of strychnia night and morning in this way, while giving the same drug in other combinations by the mouth in the usual doses, and with the usual frequency. When the heart's action is uncommonly feeble, ten to fifteen minims of the tincture of digitalis should be given in addition every night and morning.

The advantages of the hypodermic method of medication in these cases is, first, to produce a sudden impression of an arousing character upon the nervous system, and through it upon the circulation. Second, to allow the digestive organs to proceed undisturbed with the functions of digestion and assimilation.—*The Med. Bull.*, Feb., 1886.

Day on Incontinence of Urine in Children.—It seems impossible to lay down a plan of treatment for general adoption: the peculiarities of constitution and habits of life must be taken into consideration, and haphazard treatment guarded against. The cases recorded were cured or relieved by the combined influence of electricity, iron, and belladonna. Those cases that date from birth, or have lasted upwards of a year, are invariably intractable, and often incurable, especially if the child be of nervous parentage, or were delicate when born, or pass large quantities of urine. With respect to the utility of faradism there can be no question; it requires to be used regularly, and to be continued for a considerable time, but it sometimes fails altogether. When the nervous system is weak, and there is general debility, the sphincter loses its power, and urine escapes by night and day without the child's knowledge. It is in such cases as these that iron and nux vomica are of service.

If there be excess of muscular action, and the child have frequent inclination, without power of control, belladonna is an admirable remedy. It occupies a prominent place as a therapeutic agent, and sometimes, when combined with iron, even in small doses, it seems to do good; but it should not be given up in obstinate cases, till either soreness of the throat is produced, or dilatation of the pupils takes place. In my hands it has often failed when administered in any form or dose.

It certainly tends to lessen irritability of the bladder, and should always have a fair trial.

Cold sponging in the morning is very serviceable in cases of enuresis that appear to have their origin in general debility. It braces up the nervous system, and is a powerful tonic. The slight sensation of chilliness soon passes away; without leaving any depression, if vigorous friction with a towel be employed for a few minutes. In a case under my care about three years ago, the cure was attributed to this simple measure, when one remedy after another had failed. The vital functions are brought into a healthier state, the skin acts better, and the appetite and digestion improve. However delicate a child may be, free sponging in tepid water, followed by a good rubbing, is of great value. The water may be used at a temperature of 90° at first, and as the child becomes stronger, may be lowered to 70°.

Now, a word as to diet. Milk is an important non-irritating article of food, and should be mainly relied upon in these cases; but the quantity given at one time should be restricted, especially on going to bed. Farinaceous puddings, containing eggs, are admissible. When the urine is turbid and acid, or the child is rheumatic, milk ought to take the place of nitrogenous food. A child, under my care at the present time with "a large white kidney," is troubled with frequency of micturition when allowed a little beef-tea, whilst, when adhering to the milk, she only passes urine twice, or at most three times, in the twenty-four hours. In states marked by anæmia and general debility, however, animal food is an essential article of diet.—*Br. Med. Jour.*, Feb. 13, 1886.

Sinclair on a Case of Persistent Self-Mutilation.—A male, æt. twenty-five, was admitted on 18th November, 1881, suffering from mania, caused by intemperance.

Two and one half years after admission he excised the left testicle. The instrument used was a fragment of a wire nail, about half an inch long, which he had somehow obtained and sharpened. With this, whilst in bed at night, he cut through the scrotum, and dissected out the testicle, partly cutting and tearing through the spermatic cord and vessels as high as the external abdominal ring. The explanation he gave of his conduct was that the testicle

did not belong to him, but to a black man, in the same ward, and when asked if it hurt him, he replied, "No, but it did the other b——r."

Five months after this, during the night, he removed the remaining testicle, this time using the tongue of a trouser buckle. This operation was much better performed, a clean incision, two inches long, leading into the tunica vaginalis, which remained to line the cavity, the cord being separated close to the testicle. In the former case a large quantity of blood was lost, but at this time there was little or no bleeding. He said he had swallowed the testicle to prevent any one else getting it, and this was probably true, as there was blood about his mouth, and the organ could nowhere be found. He would give no reason for this mutilation, but expressed the opinion that there was now no cause for his detention here.

The next injury was the most serious, and eventually caused his death. On September 27, 1885, he complained of feeling ill, but careful examination failed to discover any cause for it, though he was pale, looked ill, and refused his food. A small scar on his right temple attracted attention; this, he said, he had made with a nail about two months before, and that part of the nail was there still. When questioned as to how the entrance of the nail was effected, he said he had placed the point against his forehead, had then struck it with his hand until it became fixed, then bumping his head against the wall, had driven it quite in. It was then remembered that a small wound, probably that made by the entrance of the nail, was noticed and examined about two months before he became ill, but owing to the swelling caused by the bumping, it was impossible to detect the presence of the nail, which was not suspected, as he said then that the wound was made by a buckle, and there were no symptoms to lead any one to suspect that the injury was other than a superficial scratch.

A small, hard lump, about the size of a split pea, could be felt under the skin, which had quite healed over it. On cutting down on this it was found to be the head of a wire nail, two inches long, which had been driven through the skull up to its head. Its removal was effected with some difficulty, and a small quantity of pus followed it. There were no head

symptoms present, no paralysis of any of the muscles of the body, eyes, of speech, etc., no vomiting, and no special pain complained of. He was quite conscious, and apparently in the same mental state as he had been for some time, and, decidedly, not more demented or stupid. After the removal of the nail no improvement resulted, and he gradually sank, and died next day.

A *post-mortem* examination was made seven hours after death. The incision, half an inch long, which had been made to remove the nail, was seen on the right temple, immediately to the outer side of the frontal prominence. Round the opening in the skull, on the outside, the bone was deeply eroded; on the inside the internal table had been pushed aside by the nail, making a raised and burred edge. On the surface of the convolutions there was a small quantity of pus, about 3 iss., but the suppuration had not extended deeply enough to destroy any of the gray matter. In this position the dura mater was absent, and round the edges of the "abscess" it was firmly adherent to the brain. In the substance of the frontal lobe there was a cavity one inch in diameter each way, filled with altered blood and broken-down brain substance. Its walls were soft, shreddy, and pulpy, and the brain substance all round was stained a deep yellow. The track of the nail was easily followed; entering in the centre of the abscess in the middle frontal convolution, it passed backwards and inwards in the horizontal plane, ending just in front of the anterior extremity of the corpus striatum.—*Australas. Med. Jour.*, Jan., 1886.

Clarke on Early Puberty.—A large muscular boy, apparently ten or twelve years old, came under treatment on account of bowing of the tibiæ due to rickets, and the parents made the astonishing statement that he was born on the May 17, 1882, a statement subsequently confirmed by a reference to the birth-certificate preserved at Somerset House. He was three feet eight and a half inches high, and weighed four stone six pounds. There was some down on his cheek, and, though there was no hair on the chest or in the armpits, he was as hairy as a man about the pubes and in the perinæum. His penis was as large as a man's, and was noticed to be erect every morning, though the testicles were rather smaller than those of an

adult. The pomum Adami was well developed, and his voice was cracked like that of a boy losing his "childish treble." The development of his brain, however, had not kept pace with the growth of his body, and his mental state was about that of a child of his years. The girth of the head round the occipital and frontal protuberances was twenty-one inches, which is certainly not very small for his bulk. It is interesting to note that, in spite of the great development of his sexual organs, he has never given any evidence of sexual desire, and that no seminal emissions are known to have occurred. The boy was the third child in a family of five, and he was bigger than the eldest child, who was over seven years old. He was suckled for nine months. At about one year of age he began to grow rapidly and to eat voraciously, so that nothing seemed to satisfy him. Hair began to grow on the pubes, and before he was a year and a half old, he was as hairy as a man. At about that time this very rapid rate of growth ceased, and, since then, his mother thinks he has only grown with ordinary rapidity. Mr. Bruce Clarke performed osteotomy on the bowed tibiae, and the boy made a good recovery.—*British Med. Jour.*, Feb. 6, 1886.

Mitchell and Lewis on Muscle and Tendon Reaction.—The interesting observations on certain tendon and muscle phenomena, are not only of value as positive additions to our physiological knowledge, but they seem also to contain the promise of a deeper insight than we yet possess into the laws governing muscular irritability in normal and pathological states. In a subject so well threshed out as this has been since Westphal's discovery, we could scarcely have expected to find so many novel points.

The authors agree with previous observers, that the knee-jerk, and other responses to tendon taps, are direct muscle acts, and a very considerable portion of the research consisted in a study of the various circumstances which increase or lessen these acts. The influence of volitional acts, already noted by Jendrassik, and the effects of strong galvanization of the brain in increasing the knee-jerk, are truly remarkable, while a combination seems capable of inducing in healthy individuals a sensitiveness of muscle such as is only met with in disease.

The passive tension, upon which Gowers and others lay such stress, is not thought to be essential, and they support their position by several striking observations. The tone and intrinsic irritability suffice, and by virtue of these, and not the passive tension, though this may assist, the muscles respond to various excitations. The study of the direct muscle reactions is very interesting, particularly in the relation established between them and the so-called reflexes. It seems odd, as the authors remark, that the electrical contractions of muscles are not reinforced by means which add to the knee-jerk and muscle reactions. We should certainly have expected a similar result.

The overflow theory which the authors adopt to explain the increase of the knee-jerk by voluntary acts, etc., seems to meet the case, but it is of secondary consideration in comparison with the value and suggestiveness of the facts worked out in this important research.—Edit., *Med. News*, Feb. 20, 1886.

THERAPEUTICS.

Billington on Permanganate of Potassium in the Treatment of Amenorrhœa.—The author recently read a paper in which he first showed the importance of the subject by a reference to the sixty-nine cases reported by Ringer and Murrell, and quoted their conclusions regarding the class of cases in which the drug was useful. Since Ringer and Murrell's article appeared, the remedy had been employed by many other physicians, both abroad and in America, and the results had been tolerably uniform. The author's experience had been limited to four cases, but these, taken in connection with those reported by Ringer and other authors, possessed some significance. In the first case the patient was eighteen years old, chlorotic, and suffering from malarial poisoning. For the nine months that she was under observation she menstruated only once, and then just after the administration of permanganate of potassium. She positively refused, however, to continue the medicine, because of the gastric disturbance which it caused. The second case was that of a girl of seventeen, who had menstruated regularly until a certain exposure to the rain, when the flow became scanty

and almost colorless ; her health then declined, and she suffered from headache, coldness of the extremities, pallor, etc. Besides other remedies, she was given permanganate of potassium in two-grain capsules, three times a day, but they were discontinued for a time on account of gastric irritability. Before the next period, the condition of the stomach having been improved, she was able to resume the capsules, when she menstruated normally, and rapidly regained perfect health. The third case was that of a girl of about eighteen, who had menstruated regularly, but, without known cause, had ceased to menstruate, and become chlorotic and feeble. Other remedies having failed to restore the menses, permanganate of potassium succeeded. On one or two occasions, however, while the remedy was being continued, a period passed without any flow, probably because such large doses were not given as were said to be necessary in some cases. In the fourth case the patient, who was sixteen years old, had begun to menstruate a year before. The flow had appeared only four or five times, and she had palpitation and shortness of breath. She began with two-grain capsules of permanganate of potassium three times a day, and during the night of the first day, when she had taken three capsules, the flow came on. This patient also complained, after taking the medicine, of an unnatural sensation under the upper part of the sternum.

With regard to the manner in which the remedy acted, different views were held. The author agreed with those who did not believe the beneficial effect was due to its improving the blood and anæmic state ; some patients so benefited were not anæmic, but, on the contrary, were plethoric. There were also conflicting views as to whether permanganate of potassium or other forms of manganese acted as general blood restoratives. Ringer denied it ; others held an affirmative view. Regarding the question whether binocide of manganese was equally efficient as an emmenagogue as permanganate of potassium, the published testimony was not abundant, but Ringer and Murrell thought it was, while Dr. T. Gaillard Thomas considered it equally efficient and much better tolerated by the stomach.

Regarding the method of administration, it had been seen that permanganate of potassium often produced severe gastric

disturbance, and some preparations were more likely to produce this result than others. The author preferred to give it in capsules. Its use should be begun a week before the expected menstruation, and, if it acted favorably, might be continued during the interval, or be suspended and resumed at a corresponding period the next month.—*N. Y. Med. Jour.*, Feb. 27, 1886.

Barker on Permanganate of Potassium in Amenorrhœa.—In order more clearly to illustrate his views, he divides the cases treated with this remedy into three groups, mentioning them in the order of their frequency :

First.—Young ladies between the ages of fourteen and nineteen, who come from the country "to finish their education." Homesickness, entire change of their habits of life and associations, over-tax of their brain-power from their own or their teachers' ambition to accomplish more in a given time than they ought to attempt, not infrequently lead to an arrest of menstruation.

Second.—Ladies, both young and married, who suffer severely from seasickness, that have left some European port within a few days of the menstrual period. With such, amenorrhœa, of longer or shorter duration, is almost sure to follow.

Third.—Ladies between thirty and forty, generally married, some of whom have borne children, who rapidly begin to gain flesh, grow stout, while at the same time menstruation decreases in both duration and quantity, until at last it is only a mere pretence. This is generally attended with annoying nerve-disturbances, pelvic weight, sometimes hæmorrhoids, and often mental depression from the apprehension of growing old prematurely.

He asserts that never, where in either of these classes of cases he has prescribed the permanganate of potassium, has he known it to fail.

But this assertion requires explanation. The patients of this kind for whom he has prescribed have, with but two exceptions, not been those met with in family practice, but have come for the special treatment of amenorrhœa, many of them from out of the city, and from other parts of the country.—*N. Y. Med. Jour.*, Feb. 27, 1886.

Manganese in Plants.—An interesting paper by Professor Fluckiger in the *Pharmaceutical Journal* (p. 621) opens by asserting the wide extension, though lim-

ited amount, of manganese in the vegetable world. Certain plants are said to have the power of absorbing the metal, others are unable to assimilate it. Much more striking facts of a similar order may be noticed with regard to iodine. Fluckiger showed in 1872 that the plants of the natural order Zingiberaceæ are remarkable for the manganese that every part of most of the plants contains. *Trapa natans*, especially its fruit, is rich in manganese, although it grows in swamps that contain only an extremely small amount of that metal. There are two species of *trapa* in the East, playing a most important part in the food of the Indian and Chinese population. Herr Lofander succeeded at Fluckiger's laboratory in demonstrating the presence of manganese in the ash of the fruits of *Trapa bicornis*. According to some authorities, *Trapa natans* appears to be dying out, but this would appear on Täggi's belief to be a correlative of the disappearance of swamps, which is the natural habitat of the "water-nut." *Tapa bispinosa*, indigenous in Bengal and the Peninsula, in the Punjab as well as in Cashmere, yields enormous quantities of a most valuable contribution to the provisions of the people of India, where, as Drury says in his "Useful Plants of India," the plant is largely cultivated.—*Lancet*, Jan. 30, 1886.

Hulman on Baths of Permanganate of Potassium.—The author recommends baths of the permanganate of potassium in scrofulous exanthemata, eczema, prurigo, intertrigo, and as a disinfectant during the period of desquamation of scarlet-fever, small-pox, and measles, the skin having been previously cleaned with soap. The patient stays in the bath until the water takes on a brownish tint. The strength of the solution is gr. xv. to the quart.—*Rev. de Thérap.*, Feb. 1, 1886.

Schroeder on the Action of Certain Poisons on Ascarides.—The author has studied many drugs considered poisonous to the *ascaris lumbricoides*. The most poisonous substances studied were corrosive sublimate and nicotin; next came caustic soda, which destroyed the substance of the worms. About equally poisonous were cyanide of potash, arsenite of soda, strychnine, coniin, physostigmin, aconitin, morphine, and picrotoxin, so also were chloral hydrate, alcohol, helleborin, chloride of barium, quinine, naphthalin, and cam-

phor, while the worms were about equally sensitive to carbolic and salicylic acids.

Of especial interest are the good results from the use of santonin, which, he claims, does not kill but only drives the worms from the small into the large intestine, whence they are swept away with its contents, for this purpose it is necessary to give a purge with or about an hour after the poison.—(*Arch. f. exp. Path. u. Pharm.* xix. s. 290.) *Cent. für. Med. Wissen.*, Jan. 23, 1886.

Reid on the Administration of Quinine in Cases of Irritable Stomach.—

That quinine requires to be administered in cases which are accompanied with irritability of stomach and bowel is shown by Dr. Aitken's attempts (Report, British Medical Association, at Cardiff, 1885) to render the subcutaneous injection of the drug innocuous. Doubtless, too, in zymotics, especially typhoid, where putrefactive (germ) fermentation goes on to a great extent in the stomach, frequently repeated doses of the drug would retard or destroy the processes, while not interfering with digestion. I propose, therefore, for cases of irritable stomach, to dissolve quinine in citric acid (glycerine may be added), and made an ordinary mixture. Dispense bicarbonate of soda in powers, more than sufficient to neutralize the citric acid of a dose. Add the soda to milk in a glass, stir well, then add dose of quinine mixture, still stirring. The effervescing draught, somewhat resembling sparkling koumiss, will be tolerated by the stomach, even when the tongue is red and irritable; the tongue, after the draught, changing its character. It is needless to further dilate upon this; I may, however, add that I used the sulphate of quinine.—*Australas. Med. Gaz.*, Dec., 1885.

Hyoscyamine in Chorea.—At the Pennsylvania Hospital recently, during Dr. Da Costa's clinic, a case was shown which possessed unusual features, and illustrated the effects of a new remedy. A boy, eleven years of age, had been brought into the wards a short time before, suffering with chorea to such an extreme degree that he was completely helpless; he had no power to walk, could not feed himself, and could not even articulate words with sufficient distinctness to make his wants known. The muscular movements did not cease entirely at night. He was given hyoscyamine in doses of 1-200 grain, which

was soon increased to 1-100 of a grain given three times a day. This remedy had been used in tremor with such marked effect as to lead the lecturer to give it a trial in chorea. The effect was very marked. In four days the boy was out of bed, and going about the ward, and he had steadily improved since. When shown, nearly three weeks after admission, the muscles were quite steady and the boy could walk naturally, and he was ready to go home.—*Bost. Med. and Surg. Jour.*, Jan. 28. 1886.

Kiernan on Quebracho in Melancholia.—In melancholia, stuporous insanity, and in certain phases of depression which mark other psychoses, the cerebral disease seems (to use Clouston's words) to exert an inhibitory action on cardio-motor innervation, causing the pulse to be small, the arterial tone low, and the capillary circulation very weak, indeed, "and in many cases there are very decided thoracic symptoms accompanied by mental distress resembling attacks of suffocation, accompanied by "precordial fright," as it has been termed. For these reasons quebracho would seem to be indicated in melancholia and the psychoses mentioned. While aware of the theoretical basis for the use of quebracho in psychoses named, my attention was especially attracted to its value in a case of what seemed to be melancholia with the facies, capillary circulation, and emotional depression well marked. The patient, a woman, had phthisis and had been deserted by her husband. She ran down rapidly, and at one time seemed almost moribund from dyspnoea. To relieve this, quebracho in half-drachm doses, every two hours, was given with very beneficial results on the dyspnoea not only but also on the patient's mental condition. She seemed to markedly rally from her depression, and the facies and depression of melancholia disappeared, but an insanity of manner made its appearance, and it was found, on careful investigation, the patient had systematized delusions of grandeur for several years before being suspected of any mental disease, and that, therefore, the melancholia was a complication of a preëxisting paranoia which had not been suspected.

Guided by the results in this case, quebracho was given in ten cases of melancholia accompanied by precordial pain, with decidedly beneficial results. I am of opinion, from these cases, that in melan-

cholia this drug will prove of decided value, especially in the atonic types. For stuporous insanity it has always given beneficial results, and has, in at least two cases, initiated a recovery.—*Am. Lancet*. Feb., 1886.

Atthill on Strychnine in Uterine Hemorrhage.—That strychnine exerts a direct action on the uterus, is to my mind clearly established. Added to ergot in cases of parturition, it greatly increases the efficacy of that drug, being specially useful when *post partum* hemorrhage is anticipated. It appears to have the power of increasing the tonic contraction of the uterine fibres, and of preventing their undue relaxation when the pain has subsided. It is specially valuable, administered in combination with ergot, in cases of menorrhagia depending on imperfect involution of the uterus. Its use is contraindicated in all cases where any inflammatory condition of the uterus or ovaries exists. Strychnine is also useful in many forms of amenorrhœa, where it seems desirable to stimulate the uterus and ovaries; and in such cases it is often prescribed with advantage, in combination with iron. It should be administered cautiously, commencing with three or four drops of the liquor; the dose to be gradually increased to eight or even ten three times a day. I have, however, known even small doses produce very unpleasant symptoms, some patients being apparently very susceptible to the effects of the drug.

For many years I have been in the habit of administering strychnine in combination with ergot in the five following classes of cases.

1. Where, from previous experience, I had reason to anticipate the occurrence of *post-partum* hemorrhage.
2. Where, during the progress of a tedious labor, the uterus becoming exhausted, I had reason to believe that hemorrhage would follow on delivery.
3. In cases of menorrhagia depending on imperfect involution of the uterus.
4. In certain forms of hemorrhage caused by the presence of uterine tumors.
5. In some forms of amenorrhœa.

In the first class of cases, I generally commenced the treatment three weeks before the expected advent of labor. If the patient was anæmic, I combined the strychnine with iron; if plethoric, with muriatic acid; in all cases, the vehicle being the infusion

of ergot; and I have had the most satisfactory results. After the patient has taken the medicine for a week or ten days, I discontinued its use for forty-eight hours, recommencing it again. In several cases in which the patient had invariably suffered, previous to the adoption of this treatment, from severe *post partum* hemorrhage, none occurred; in all the others it was markedly less. I never once have known any unpleasant result follow; in none was the foetus affected, all the children were born alive, and, as far as I know, none suffered from convulsions subsequently. I may here add that I believe ergot to be absolutely innocuous to foetal life, unless it produces its specific effect—that is, excites almost continuous uterine action; and my firm belief, founded on a very extended experience, is that ergot is powerless to originate uterine action; it will stimulate a uterus previously in action, or one in which uterine action is about to commence, as in the case of a uterus containing a blighted ovum or foreign body; but not, as far as my experience goes, under any other circumstances, and not always under these. The formula I generally use is the following: Infusi ergotæ ad ʒvj; ext. ergotæ liq. ʒij; liq. strychniæ ʒj; acid. hydrochloric. dil. ʒij. A tablespoonful, by measure, three times a day. In anæmic cases, substituting a drachm of the ammonio-citrate of iron for the muriatic acid.—*Br. Med. Jour.*, Feb. 6, 1886.

Jacobi on Papain or Papayotin.—After referring to the chemistry of this substance, which is obtained by adding alcohol to the juice of the papaw plant, the physiological action was described. Its therapeutic effects were next considered. It has been found innocuous when taken internally; but when injected subcutaneously, it is followed by dangerous symptoms of paralysis of the heart and nervous system. Its effect has been compared to that of pepsin and pancreatin, with this exception, that it is effective in smaller doses. It is useful in alimentation.

Diphtheritic membranes are dissolved by it in a few hours. Several cases of diphtheritic deposit were described as showing the effects of this drug, one part to four of water and four of glycerine. In these cases the membrane was softened and dissolved, and disappeared within forty-eight hours. He exhibited specimens of egg,

meat, and cheese digested by a solution of papayotin of the strength of 1 to 250.—*Med. News*, Feb. 6, 1886.

Smith on the Treatment of Dropsy with Apocynum* Cannabinum.—My own personal knowledge of the use of this drug is limited to its employment in three cases. The first was a case of renal disease, with scanty urine and threatenings of uræmia. All the usual diuretic remedies had failed, when an infusion of apocynum excited profuse diuresis, and the danger was averted. The second was a case of cardiac dropsy. The result was not satisfactory, possibly owing to lack of care in the selection of the drug.

The third was a woman, about forty years of age, who had advanced chronic nephritis, with extreme incompetency of the mitral valve. There was general anasarca, including the face, with a large amount of peritoneal effusion, and the lungs were œdematous. There was extreme dyspnoea, the face was cyanotic, and the mind wandering. The daily amount of urine varied between six and twelve ounces. The usual list of diuretics had been exhausted with no benefit, and I remarked to the house staff that it seemed scarcely worth while to annoy the patient with further medication. However, as a last effort, a decoction of apocynum was prescribed, and with most gratifying results. In thirty-six hours the urine had increased to thirty ounces, and the urgent symptoms had subsided. Since then the patient has been fairly comfortable, and she is to-day in a much better condition than that of four months ago.

As to the mode of action of the drug, it would seem that it can scarcely be by direct stimulation of the glandular structure of the kidneys, else we should not find it valuable in scarlatinal dropsy, for instance, in which we suppose the kidney to be already in a state of irritation. Nor can it be through general increase of arterial tension, since apocynum has succeeded when digitalis and convallaria had failed. I would hazard the conjecture that the action is a special one upon the renal plexus, causing increased vascular tension in the kidney itself.

The drug has tonic as well as diuretic properties. Its taste is not disagreeable, though strongly bitter. It appears to me that it would have a favorable effect in atonic gout, with insufficient renal excre-

tion as one of its factors.—*N. Y. Med. Record*, Feb. 20, 1886.

Fubini on Inhalations of Blood.

For anæmic patients in whom the preparations of iron are ill tolerated, M. Fubini avails himself, with marked benefit to the patients, of pulverizations made of a mixture composed of 80 parts of a solution of chloride of sodium ($\frac{1}{2}$ per cent.), and 20 parts of defibrinated ox blood. An ordinary spray suffices for carrying out the procedure, which may be repeated without danger five or six times a day, each inhalation lasting about fifteen minutes. Each sitting ought to use up about twenty centimetres of defibrinated blood. The patients experience, after having taken several deep inspirations, a slight giddiness, which disappears on assuming the horizontal position or after taking a glass of wine. Absorption takes place rapidly from the respiratory passages. M. Fubini remarks on the perfect tolerance by patients of the inhalations; and on the certainty with which hæmoglobin is absorbed by the respiratory passages.—*Lancet*, Feb. 20th.

Iodol.—The recent discovery of a substance to which has been arbitrarily given the name of iodol, and its application as an antiseptic to wounds, have been mentioned in *The News*. Desirous of knowing whether iodol had unequivocal germicidal power, and, having that power, how great it was, we applied to Dr. Stenberg to test these points. He very kindly has made this investigation, and we are sorry to say that the results are negative. He states that a saturated aqueous solution was added to an equal quantity of gelatine solution, and put in a warm place; at the end of twenty-four hours the mixture was swarming with the bacteria of putrefaction. The experiment was repeated with urine, and the result was similar. He then added a considerable quantity of the powder to fresh urine, in a test-tube, and after shaking the mixture well, allowed the powder to subside, and then added a drop of broken-down urine. At the end of twenty-four hours the urine in the test-tube had undergone putrefactive decomposition, and was swarming with micro-organisms. In addition to the insolubility of iodol as thus shown, Dr. Stenberg suggests that as a powder in direct contact with a granulating surface, iodol might have a certain antiseptic value, or possibly in the presence of a discharge from a suppurating

wound it would be slowly decomposed, and iodine set free, but this can only be determined by clinical experiment.—Edit., *Med. News*, Feb., 1886.

Leedom on the Ethylate of Sodium in Nævus.

I see by the last *Reporter* that one of your readers is anxious to know something about the treatment of nævus with the ethylate of sodium. I have not had a very extensive experience with it, but sufficient, I think, to warrant me in recommending it very highly. It is a pasty liquid of about the consistency of cream. The following is the manner in which it is used: Take a piece of adhesive plaster, cut a hole in the centre of it the size of the nævus. Apply this over the nævus. This serves to protect the sound skin and leaves the nævus exposed for treatment. Paint the nævus on two successive days with the sodium, using a camel's-hair brush. An eschar is formed, which comes off in two or three weeks, and the nævus is cured. The pain from the application of this remedy is not very great, and the result is entirely satisfactory.—*Med. and Surg. Reporter*, Feb. 27, 1886.

Greifenberger on the Treatment of Typhoid-Fever with Corrosive Sublimate.

—The author treated forty cases with teaspoonful doses of a 1-4,000 or 5,000 solution of corrosive sublimate after an evacuation of the bowels by senna. On the second day the temperature usually fell, and a day or two later became normal. With the fall of temperature the other symptoms improved, particularly the lethargic condition. This treatment is not contra indicated at any period of the disease.—(*Berl. klin. Woch.*, 1885, No. 38) *Cent. f. klin. Med.*, Feb. 13, 1886.

The Therapeutic Inutility of Calcic Phosphates.—Recent experiments tend to throw doubt as to whether phosphate of lime, given for medical effect, is ever assimilated by the organism.

Heiden, of Pommeritz, experimented with twelve guinea pigs, all of the same litter; four were vigorous, four less strong, and four were very feeble. These were divided into sets, four in each, two strong guinea pigs being associated with two weak ones. To one strong and one weak one was given phosphate of lime mixed with the ordinary food; to the other two pigs of the set only food was given. The experimentation lasted forty-three days, and the sole result obtained appeared to be

augmentation of calcic phosphate in the excrements.

Heiden concludes from these experiments that phosphate of lime is not assimilated.

The same conclusions result from the researches of other German observers. Weiske has shown that phosphate of lime added to the feed of milch cows not only is not assimilated, but is not even eliminated in the milk. Sanson, professor of the school at Grignon, has repeated these experiments and arrived at the same conclusions, namely : that phosphate of lime, added to the daily rations of animals, is not appropriated, and all passes out in the fecal matters and in the urine.—Edit., *Bost. Med. and Surg. Jour.*, Jan. 28, 1886.

Kobert on the Physiological Action and Therapeutic Value of Quillaia Bark.—The same two principles which occur in senega are present in considerably greater quantity in another drug which costs but a fifth of the price, that is, in the bark of quillaia saponaria (Molina). They are easily obtainable, and quantitatively analyzable.

I have named them respectively quillaic acid and sapotoxine. One must not imagine that the former is an acid in the usual sense of the word, but only in the same sense as carbolic acid. Schmiedeberg proposes, therefore, to call it quillaïne instead of quillaic acid, but one must remember that the word quillaïne has been in past times applied to the impure mixture of the two substances.

It has been found in clinical investigations in Halle, Strassburg, Freiburg, etc., that the administration of senega can be very efficiently replaced by that of quillaia. The decoction of quillaia bark (5 in 200 of water) has a much pleasanter taste than that from senega, so that even children prefer the former.

The therapeutic results hitherto obtained may be expressed as follows : when expectoration is difficult from the tenacity of the mucus it is facilitated through the latter being rendered thinner and more copious ; at the same time the stimulus to expectorate is increased. It naturally follows that this remedy is not suitable for every case, and that it must not be employed when the urgency to cough and the raw feeling in the throat gets too acute. Vomiting and diarrhœa occur much seldomer than after use of senega. Any aromatic or simple

bitter may be used with it as a flavoring agent. The drug itself contains a large quantity of a sweep carbo-hydrate, and consequently can be employed in the case of poor persons quite well without any corrective, which is of course not the case with senega. The remedy is contraindicated in cases of ulceration in the throat or in the gastro-intestinal canal, since it is too energetic an irritant for such.

The physiological actions of these two glucosides, whether they be from senega or from quillaia, were in every case identical.

When injected into the blood, doses of even 95 mgm. per kilogramme ($=\frac{1}{2}\frac{1}{4}$ grain per lb.) of the weight of cat or dog caused a fatal result. For rabbits and guinea pigs the dose must be slightly increased. In all of the above cases death was due to paralysis of the central nervous system, without a trace of alteration being detectable in any organ, or even in the brain. At the utmost the number of the blood corpuscles in a cubic millimetre was decreased by a fifth. After large doses, however, very decided anatomical alterations show themselves in the gastro-intestinal canal, in spite of the fact that the injection has been made intravenously. These alterations consist in multiple punctiform extravasations, which appear first in the subserous tissue, and subsequently in the mucosa and submucosa ; they are best seen in the duodenum and in the large intestine. Hand in hand with these hemorrhages comes on an enormous swelling of the parts affected, and this advances to the formation of diphtheritic patches, which get more or less detached. The fæces of the animal under these circumstances exactly resemble those of dysentery. It is very remarkable that the tumefaction of the duodenum very often extends along the common duct into and throughout the gall bladder, which also frequently exhibits extravasations under its serous coat. When injected locally these glucosides act as intense local irritants ; in other words, they evoke, even under antiseptic precautions, great œdema and extensive extravasations there, along with functional incapacity of all the immediately neighboring parts. Painted upon the inside of the throat, even when in very dilute solutions, they cause coughing, soreness, salivation, and nausea. Introduced into the *healthy* gastro-intestinal canal, they do not get absorbed into the blood ; only

when ulcers are present, or the mucous membrane has been irritated by previous repeated doses, does absorption take place. Most striking is the action of these substances upon the blood, for the red blood corpuscles become dissolved when one millionth part by weight of the substances is added to it.

These bodies may be correctly described as poisons to the protoplasm. In warm-blooded animals they destroy at first the functions of the most sensitive forms of protoplasm; in other words, that of the central nervous system, and death results from cessation of the respiration. In frogs one can, however, show that they are also fatal poisons to the other protoplasms, *e. g.*, of the heart; for the motor-ganglia, and then the muscular tissue itself, gets paralyzed.—*Practitioner*, Jan., 1886.

TOXICOLOGY.

Katzenbach on Quinine Idiosyncrasy.—A nursemaid for whom he had prescribed quinine in the form of two-grain pills early in the day, went to his office at 5:45 P.M. highly excited and in great distress. Her face was flushed, and her hands and arms were red. She complained of giddiness, mental confusion, and an inability to remain still. She had taken one pill at five o'clock, and in thirty minutes experienced, in her own words, "burning pain in the stomach and prickly heat all over." Her mouth and the parts behind the ears were very sore. There was great pain in the top of the head, and in the lower part of the body and the thighs. The breasts were swollen and painful. Her pulse was rapid and not strong. No examination was made. She was advised to go home and to bed at once. Sodium salicylate and sodium bromide were ordered in doses of five grains each, to be taken every hour, and the patient was requested to send word in the evening if she was not relieved. The writer did not see her until the next day. She further said, in her description, that on her way from his office to her home, she could scarcely walk straight, and feared she might be seen by a policeman and arrested for intoxication. She took one dose of the salicylate and bromide, but shortly vomited it. The burning pain left the stomach. The tongue and throat felt swollen, the

pain increased in the head, and she had "a feeling of being smothered." At 7 P. M. she fell on the floor unconscious. When consciousness was regained she took another dose of the salicylate and bromide. Her legs were painful and heavy, refusing to support her. A cold perspiration came on, which continued some time, during which her bowels were moved. A third dose was afterward taken. At 10 P.M. the pains had left her head and extremities, but fulness of the head remained. She slept, off and on, from this time till morning, and awoke feeling well. Her urine was retained from the time of taking the quinine until the next morning.

She had a similar experience in England a few years ago from a dose of five grains. She was reluctant to take what was ordered, and did so after considerable persuasion by a friend.—*N. Y. Med. Jour.*, March 6, 1886.

Gasser on Poisoning from the External Application of Aconite.—The patient had been employing tincture of aconite as an external application, and had used up an ounce in this way in three days. As he was no better, Dr. Gasser ordered the discontinuance of the aconite and gave him salicylate of soda and colchicum internally. On the following morning he was much better and took a hot foot-bath, keeping his feet immersed without rubbing for about half an hour. At the end of this time he began to feel so "very peculiar" that the writer was sent for. He found him sitting in a chair and complaining of tingling sensations, starting from the hands and feet and extending over the entire body, and of nausea. The pulse was weak and slow, and the skin was cool and moist. As he was growing worse and was vomiting frothy mucus, he was put to bed, and hot-water bottles were applied to his body. Although he had taken no aconite internally, the symptoms were unmistakably those of aconite poisoning, and Dr. Gasser was about to give him a hypodermic injection of brandy and digitalis over the heart, when he was taken with a spasm, made a few jerking efforts at respiration, and then seemingly died of syncope. The heart had apparently ceased to beat, and pulsations could be detected neither by the writer nor by Dr. Buck, who was present. Although without hope of restoring the patient, the hypodermic injection was nevertheless given, partly for the reason that it was prepared. In about a

minute he began to gasp for air, and the heart could be felt to beat. The injection was then repeated, hot wet cloths were laid over the heart, and an enema of brandy and digitalis was given by the bowel. Reaction was soon fully restored, the pulse and respiration became strong, and the skin warm, red, and covered with perspiration. This was followed by spasms, which were controlled by morphine and ether, and the patient then passed into a restless sleep from which he awoke conscious but dull. The following morning, though feeling rather stupid, he arose and ate breakfast with his family. Dr. Gasser offers the following explanation of the occurrence of poisoning:

"Tincture of aconite is a resinous solution in alcohol, and as fast as it was applied to the skin the alcohol evaporated and the aconite was deposited like a coat of varnish on the skin. (The limbs were bathed with it from the knee down.) The hot-water soaking caused a congestion and softening of the skin, and put it in the best possible condition for absorption.—*N. Y. Med. Record*, Feb. 27, 1886.

Shearer on Poisoning with Cyanide of Potassium.—On the 23d of February, 1885, about nine P.M., I was summoned by my friend, Dr. Brady, to the bedside of a gentleman in the prime of life, just dead with tetanic convulsions and symptoms of narcotic poisoning. A pound bottle of cyanide of potassium, uncorked, stood near by. The pupils were widely dilated, the face of a ghastly bluish hue, and the heart and pulse had ceased to beat.

It appears that he was recovering from an attack of influenza or feverish cold with abundant lithates in the urine, for which Dr. Brady had been treating him, and that for some days he was unusually depressed in his mind as to his pecuniary resources, for which, however, there was no reason. He ordered some tea and toast in the evening, but, hearing a chair fall, his wife ran up to him before it was ready, and was shocked to find him in convulsions and calling out for something to drink. He gasped convulsively once or twice at long intervals after Dr. Brady was called, became as stiff as a board, with his head thrown back, as in tetanic convulsions, and wrought convulsively with one arm. He died in from seven to ten minutes from the first alarm, with clenched teeth and spasmodic closure of the jaws

Post-mortem Examination twenty-two hours after death.—Well-marked rigidity, leaden-hued pallor of the countenance, bluish tint of the general surface, nails quite blue, jaws closely and strongly clenched, so that they could not be forced asunder. Nothing was found impacted in the larynx, trachea, or gullet. Fæces had been involuntarily passed. There was only a little urine in the bladder. On opening the cavity of the chest a very perceptible odor of prussic acid was perceived by the three medical men present, as also from the various organs on section being made. The blood was very fluid, showed not the least tendency to coagulate, and had an unusual claret tint. Heart, both valves and substance, quite healthy, containing fluid blood. Lungs spongy and crepitant throughout, but posteriorly much congested—semi-solid, in fact, with infiltrated blood and in parts apoplectic clots. Spleen normal, liver normal, with a bluish tint at the side of the gall-bladder. Kidneys healthy, but brightly congested. The stomach presented patches of dark-red, almost purple, extravasation along the greater curvature posteriorly, and the veins of the upper part of the jejunum and ileum were very full and prominent, while the lower portions of the small intestine and of the large intestine were comparatively dry and bloodless. Membranes of the brain healthy, brain normal, after-brain and medulla normal.—*Provinc. Med. Jour.*, Feb. 1, 1886.

Halderman on Eclampsia and Death Produced by about There Drachms of Oil of Wintergreen.—I was called one morning to little May M., aged two years and five months. Her father told me that the day before she had swallowed about three drachms of oil of wintergreen, had vomited freely immediately afterwards, and continued to vomit from time to time during the evening, complaining of but little pain and considerable thirst, was very restless till one o'clock in the morning, twelve hours after taking the oil, when she had a convulsion; had been unconscious ever since, with almost constant convulsive movements. Four hours after first convulsion, eighteen hours after drinking the oil, I was at her bedside, and found radial pulse imperceptible, great muscular rigidity and contraction, with occasional slight relax action; frothy saliva between the teeth, eyelids partially open,

pupils about normally contracted, cold perspiration of face and hands. Immediately administered 1-20-grain morphia hypodermically, and injected $\frac{3}{4}$ ss. spts. frumenti per rectum.

The child died in twenty minutes after my arrival.—*Cincin. Lancet-Clinic*, Feb. 20, 1886.

Hood on Poisoning by Oxalic Acid.

—D. W.—, aged forty-two, laborer, was admitted on June 9, 1885. Shortly before admission he had taken half an ounce of oxalic acid mixed with hot tea. The patient stated that almost instantly he became unconscious. He was brought to the hospital at 9 A.M., being in a collapsed condition, with sub-normal temperature (97.2°); pulse very feeble (120 to 130), scarcely perceptible at the wrist; no delirium; face livid and cold; extremities cold; pupils normal; mind entirely clear; throat extremely painful; tongue with white coating on dorsum, otherwise not much burnt; almost constant retching, any fluid swallowed being immediately returned; vomit giving characteristic reaction, becoming black after standing. The patient was treated with lime-water and albumen, the tendency to collapse and syncope being kept in check by brandy and sinapisms. 2 P.M.: Quietly dozing; temperature normal; pulse 90, very feeble; retching still obstinate. 10:30 P.M.: General condition improved; pains in the throat less. Now makes complaint of great pain over region of the bladder and right hypochondrium. Is unable to pass urine; 20 oz. drawn off by the catheter, and found to be normal.

June 10th.—Passed a fair night. Pulse 68; bladder, which does not appear to be increased by pressure; still vomits; has passed no urine.

11th.—Voided 3 oz. of urine, which was unfortunately thrown away. Pulse 78; temperature 100° . Pain in the loins. Vomited much.

12th.—Urine 3 oz., thick, straw-colored; sp. gr. 1012; neutral; nearly solid on boiling; deposit of blood-corpuscles and large granule cells; no casts. Vomiting continues the most troublesome symptom. The abdominal pain is less.

13th.—Urine 3 oz., character same as last. Vomiting more troublesome; every thing taken by the mouth is thrown up immediately. On one occasion about a pint of black fluid (altered blood) was ejected.

Ordered to take no food by the mouth; to be fed entirely on nutritive enemata.

20th.—Urine 144 oz. during the twenty-four hours; it is still highly albuminous; examined for urea, it was found that an average of 700 grs. per day are being passed; the deposit consists of granular cells; casts containing granular cells, others simply granular, and others hyaline.

July 3d.—Discharged well.

In the cases of poisoning by oxalic acid to which I have referred, I can find no mention of the kidneys being subsequently affected. In the above case the suppression of urine first noticed was more apparent than real. The patient could take no nourishment, and vomiting was constant. But that the kidneys received the brunt of the attack was clear by the large amount of albumen which appeared, and which rendered the specimen of urine examined all but solid. Blood-exudation corpuscles, pus, albumen, and casts, pronounced a definite nephritis, which cleared up as rapidly as it commenced, convalescence being marked by extreme diuresis. With regard to the treatment, the fact that for five days the stomach had complete rest, the patient being supported during that time entirely by nutrient enemata, is worthy of note. As in many other cases of poisoning by this salt, the onset of symptoms was very sudden. My patient stated emphatically that he became almost immediately unconscious.—*Lancet*, Feb. 20, 1886.

Alderton on a Toxic Dose of Belladonna.—It is well known that children tolerate belladonna in large doses; but the following may be interesting by showing what a large dose may be taken without much inconvenience. A woman brought a child to me suffering from pertussis. I prescribed a two-ounce mixture containing 48 minims of tincture of belladonna (*British Pharmacopæia*). On reaching home, the mother placed the bottle on the table whilst giving the child a teaspoonful of the mixture, when a boy, aged 3 years, seized the bottle, and drank off the contents—that is, about 45 minims of belladonna. According to her account, the only effects it produced were sleep for two hours, and thirst lasting the remainder of the day. She thought it of no consequence, therefore I did not hear of it till the following evening, when all symptoms had passed away.—*Br Med. Jour.*, Jan. 30, 1886

Robinson on Poisoning by Paraffinum Molle.—On Thursday, January 14th, I was summoned to see three children, aged from 8 to 14 years, who, it appeared, had been each given about half a teaspoonful of vaseline on sugar the previous evening, as they were suffering from sore-throats. Soon afterwards, whilst in bed, they were all seized with pain in the knees and cramps of the lower extremities, together with severe vomiting, which continued for eight or nine hours. On visiting them the next morning, the severity of the symptoms had passed off, although the eldest child was still inclined to vomit, and was in a somewhat collapsed state. There were no febrile symptoms, and they all quickly recovered their usual health. I carefully inquired for any other cause for the symptoms, but neither in their diet nor elsewhere was one to be discovered.

At the request of the father, I saw the druggist who had sold the vaseline. He showed me two samples—one in a tin case, and the other in a stone jar. The former was labelled vaseline, and the latter paraffinum molle, *B. P.* The *British Pharmacopæia* preparation was the one supplied to my patients. It would be interesting to know whether vaseline should be administered internally at all, and, if so, in what doses.—*Br. Med. Jour.*, Feb. 13, 1886.

Kreyssig on the Changes in the Spinal Cord in Rabbits and Dogs Poisoned with Phosphorus, Arsenic, etc.—Danillo, in phosphorus poisoning, Popow, in arsenic, lead and mercury poisoning, and Tschisch, in poisoning with morphine, atropin, silver nitrate, and potassium bromide, in rabbits and dogs, have all found microscopical changes in the gray substance of the spinal cord,—a cloudy swelling of the multipolar ganglion cells, a destruction of protoplasm, formation of vacuoles, white cells devoid of processes,—and have interpreted these appearances as products of an advanced degeneration. Kreyssig has instituted comparative studies between normal cords of rabbits and dogs, and those taken from animals poisoned with arsenic and phosphorus, either acutely or chronically, and has seen small hemorrhages among the ganglion cells, nerve fibres, and neuroglia of the spinal cord; but, with the most approved methods of preparing and studying such tissues, he finds absolutely no other changes. All the other degeneration

changes previous observers have noted, Kreyssig finds, but not the gross spinal lesions. Schulze, moreover, has shown that, from a clinical point of view, the radical views of Danillo, Popow, and Tschisch are hardly tenable.—*Virch. Arch.*, Bd. cii., p. 286. *Cent. f. klin. Med.*, Feb. 20, 1886.

PATHOLOGY.

Lancereaux on Exudative Endocarditis Dependent on Purulent Foci in the Genito-Urinary Organs.—One patient, a man of thirty-three, suffered for fourteen days from severe septicæmia, but had no cardiac symptoms. On autopsy there was found abscess of the epididymis, bladder, ureters and pelvis of the kidneys. The mitral valve was the seat of numerous soft blackish vegetations.

The second patient was a man of sixty-four; had been sick with a low septic fever for about twelve days. There was a double murmur at the base of his heart. On autopsy the prostate was found to be the seat of a large diffuse abscess. The heart was hypertrophied, the aortic valves were thickened, covered with vegetations, partly destroyed, and had small abscesses beneath them. For similar cases see *Gaz. des Hôp.*, 1886, p. 1.—*Gaz. des Hôp.*, Feb. 13, 1886.

Hartmann and Pignot on Hemorrhage and Syphilis.—The authors conclude that in congenital syphilis a true hemorrhagic diathesis is often seen. In acquired syphilis there is no proof that the diathesis predisposes to bleeding from simple wounds. When the wound involves syphilitic tissue a hemorrhage is exceptional. Specific ulcers rarely show any oozing of blood except where, by their extension, they destroy the walls of a vessel. By means of the arteritis it causes, syphilis can cause visceral, especially cerebral, hemorrhages. Intermittent hemoglobinuria is very often caused by syphilis. This condition, according to Murri, is explained by a morbid condition of the blood-making organs and the vaso-motor centres. Syphilis can cause cutaneous hemorrhages from the surface of specific eruptions or by producing a special form of purpura.—*Annales de derm. et de Syph.*, Jan. 25, 1886.

Embolism and Chorea.—In the first number of *The Lancet* of the present year we published an article on the relations of

embolism and chorea, by Dr. Howship Dickinson. Any one who is conversant with the literature of chorea—using the term in its widest sense, as including every phenomenon that has ever received the name, and their number is legion—will grant without hesitation that there never was a problem that presented more diversity of aspect, more change of opinion, and less likelihood of arriving at a satisfactory solution. Mr. A. H. Benson has reported in the current number of the *Ophthalmic Review* a case of partial embolism of the inferior division of the central artery of the retina associated with repeated previous attacks of chorea. The patient was a man, aged twenty-one, who had had rheumatic fever in 1881, chorea in 1882, again in 1883, and once again in 1884. The retinal embolism was, however, unaccompanied by symptoms in other parts of the nervous system. Mr. Swanzy in 1875 recorded the case of a girl, aged ten, who developed chorea, and at the same time facial paralysis and embolism of the left central retinal artery. In neither of these cases was there any evidence of heart disease. The occurrence of such associated phenomena lends considerable countenance to the embolic theory of "chorea," but cannot be regarded as conveying any thing in the nature of proof.—Edit., *Lancet*, Jan. 30, 1886.

Beatty on the Pathology of Lead Paralysis.—Having described the lesions which have been found by different observers in the spinal cord, nerves, and muscles, and having discussed the theories which have been put forward to account for the paralysis, he exhibited sections of the spinal cord of a man, aged thirty-one, a painter, who was admitted into the Adelaide Hospital, under his care, suffering from lead paralysis. The man died of uræmia. There appears to be a marked change in the internal and anterior group of ganglion cells of the anterior cornea in both the cervical and lumbar enlargements, especially in the latter. The cells are both fewer in number—some sections showing only one or two—and smaller than natural; some stain badly, and in many the processes are not distinct. The ganglion cells of the lateral groups are well represented and appear quite normal. Round the central canal in both the cervical and lumbar enlargements there is a large collection of cells, especially abundant in the lumbar region. The number of these cells appears

to be considerably beyond the normal. No abnormality was found in the anterior nerve roots.—*Dub. Jour. Med. Sci.*, Jan., 1886.

Knight on Hydated Cyst of the Heart, Causing Sudden Death by its Rupture.—The man from whom this specimen was taken was 42 years old, and his occupation that of a striker.

On the morning of September 22, 1884, he went to work in his usual health. On returning home to breakfast he suddenly complained of a pain in the cardiac region and fell down; some of his fellow-workmen picked him up and found that he was dead.

A *post-mortem* examination was made on September 24th.

After removing the heart it was noticed that there was a localized bulging in the wall of the right ventricle, and on laying open the ventricle it was seen to be due to a cavity in the muscular substance which communicated with the cavity of the ventricle by an opening about $\frac{1}{4}$ inch in diameter. Through this opening could be seen a collapsed hydatid cyst. The cyst, when distended, was the size of a small walnut; it had the usual gelatiniform appearance, and after hardening could be separated into numerous concentric laminæ.

The right lobe of the liver contained another cyst about the size of a large orange, which was surrounded by a dense fibrous capsule. This cyst contained numerous daughter cysts.

The other organs were healthy.

From these facts, it appears plain that the cyst in the heart ruptured suddenly as the man was walking home, and caused immediate death by syncope.—*Liverpool Med.-Chir. Jour.*, Jan., 1886.

Alexander on Malformation of the Heart.—A male child died eight days after birth in the lying-in wards of the Liverpool Poorhouse. It was intensely cyanosed at birth, and continued so till its death. A few days before death a cough developed. Dyspnoea and lividity then increased rapidly until coma and convulsions supervened. No clue to any cause for the malformation could be obtained.

No trace of a right ventricle could be found. The pulmonary artery commenced in a blind extremity at the base of the heart, at the place where it would in ordinary circumstances enter the right ventricle. This vessel divided into its usual

branches, and was connected with the aorta by a large patent ductus arteriosus.

The auricles were complete in every respect except that no trace of a septum could be found beyond a small fenestrated fold on the lower wall. The great vessels of the heart were normal in number, but the aortic arch passed backward to the right of the trachea, whence it gradually reached the normal position behind the root of the left lung. It was evident that the contraction of the single ventricle propelled the blood not only into the general system through the aorta, but indirectly through the ductus arteriosus and pulmonary vessels to the lungs. The unseparated auricles received the pulmonary arterialised, and the systemic venous blood, where the red and purple streams were thoroughly commingled as and before they passed into the ventricle. The child suffered very little from dyspnœa until a catarrh set in. Then it seemed that the arterialisation of the blood became lessened beyond the bounds of safety, and death rapidly occurred.

The distal phalanx of the left thumb was double, each of the duplicate phalanges possessing a perfect nail.—*Liverpool Med.-Chir. Jour.*

Jones on Urinary Calculi, Illustrating Spontaneous Fracture.—The calculi were taken from the bladder of a gentleman, aged eighty-one, whose gall-bladder was also full of calculi. He had suffered for twenty years from rheumatic gout, and for the last seven years from passage of calculi per urethram. Extravasation of urine necessitated perineal section, and through the incision in the membranous portion of the urethra a number of pieces of calculi were extracted. Ten days later the patient died, and in the bladder seven more or less complete calculi and eleven detached pieces were discovered. Mr. Jones considered that these calculi contained in their interior soft deposits of mucus, urate of ammonia, and phosphates, which by decomposition and development of gas led to fracture.

Nov. 16th.—Up daily for the last fortnight; helps to make the beds, and has no symptoms whatever. Has had no medicine since Oct. 22d, save purgatives occasionally. To be an out-patient.—*Lancet*, Jan. 23, 1886.

Ord on Spontaneously Fractured Calculi.—According to him two modes of

disruption occurs: the one, as explained by Mr. Jones, depends on decomposition of soft deposits of mucus, urates, and phosphates in the interior of the calculi, the layers of which are forced asunder by the gas resulting from such charges; the other cause being the erosion of the calculi by colloid fluids, which effects a sort of molecular disintegration of the accretions. The varying action of various fluids on the bladder in this connection opens up an interesting problem: whether, that is, it may be possible to derive from information so afforded some valuable hints for the treatment of calculi, *in situ*, by other than operative interference; and though this aspect of the question was not directly adverted to on the occasion of which we speak, still it doubtless occurred to many present, and may yet be fully considered.—*Med Press and Circ.*, Jan. 27, 1886.

Otis on the Limitation of the Contagious Period of Syphilis in Relation to Marriages, etc.—According to the views entertained by the author of the paper there is no such thing strictly speaking, as hereditary transmission of syphilis; that there is no well-authenticated evidence of communication of syphilis after the secondary stage has been completely passed; that after the absence of all symptoms referable to syphilis for one year, marriage can be entered into with safety; that communication of syphilis after the third year of its existence is rare; that tertiary syphilis is due to obstructive changes affecting the lymph-channels caused by the disease in its secondary stage; that spontaneous recovery from tertiary syphilis may occur, etc.—*N. Y. Med. Record*, Feb. 6, 1886.

Bulkley on Non-Venereal Syphilis.—The author read a paper in which he drew the following conclusions: 1. Syphilis was not necessarily a venereal disease, but in a considerable proportion of cases acquired quite unconsciously, and in an entirely unexpected manner. 2. Failure to obtain a venereal history should not lead to the conclusion that certain lesions were not those of syphilis. 3. The syphilitic virus could be carried a long distance, and, after some time, be able to cause syphilis in the inoculated. 4. Non-venereal chancres had been mistaken for epithelioma, and operations for removal had even been performed. 5. Non-venereal syphilis often showed great malignancy.—*N. Y. Med. Jour.*, Feb 6, 1886.

Hutchinson on the Natural History of Syphilis.—I have urged that many of the phenomena of syphilis usually counted as tertiary really occur, as a rule, in its early periods, and that there is no structure in the body which may not be attacked in the secondary stage. As instances of this fact, I have mentioned rupia, perioritis, and diseases of the viscera and of the nervous system. If my argument holds good, we must regard the terms secondary and tertiary as applicable to different periods of time, and not to different phenomena. At the same time it has been fully admitted that syphilitic processes do display different tendencies in relation to the stage in which they occur. The position assigned to the tertiary symptoms has been that of late relapses of morbid processes, in tissues previously damaged. In this way it has been suggested that syphilis may occupy an important part in predisposing to such maladies as locomotor ataxy, without actually causing them. Lastly, the relation of mercury to the natural evolution of syphilis has been discussed, and I have tried to claim for it the position of an antidote to the virus, asserting that not only can it cause symptoms to disappear, but, if used early enough, will entirely prevent them.—*Med. Press and Circ.*, Feb. 3, 1886.

DERMATOLOGY.

Curtis on Ringworm of the Scalp.—The author concludes that chrysophanic acid is a reliable parasiticide, and that, combined with an impermeable covering, it will cure a fair proportion of cases without the labor of depilation, materially relieving those not cured; that it does not act by setting up a suppurative inflammation, being as to this well borne by the scalp. The impermeable covering is of very considerable value, not only as neutralizing the conditions favoring reinfection, but also by evidently hampering the growth of the fungus, if not to a degree destroying it. In none of the cases has permanent baldness resulted. It has been said that tinea capitis will finally disappear without treatment, but the natural history of the disease must be a long one; under the most fortunate treatment it will last from three to six months usually.

In regard to the exact point of time when the disease may be pronounced cured, it is

often difficult, though always important to determine. Duckworth's chloroform test, by means of which, as asserted, the hairs containing fungus are turned a distinctive white color, is not of value, since it would only be appreciable when the amount of fungus was considerable, and also since the hair is far from normal even when the fungus is completely destroyed. The microscope is also of a negative value, for it often failed to discover fungus in cases where the disease was not cured. As to the growth of healthy hair, in old cases this will not appear till long after the disease is cured. The best test is the appearance of the scalp itself. If, after one or two weeks' suspension of all treatment and washing, the cuticle is found free from ashen-gray scales and the goose-flesh appearance, and the still bald patch is smooth, of a normal color, and free from the stumps of broken hairs, he has found it safer to discharge the patient from quarantine. The entire surface of the close-cropped scalp must be searched for possible foci. Often the question will be complicated by the scaliness of slight eczema or pityriasis.—*N. Y. Med. Jour.*, Feb. 20, 1886.

Taylor on Linear Atrophy of the Skin.—The patient, C. B., aged nineteen, was of healthy parentage, her father being a very dark negro, while her mother was as light in color as the patient herself. A great-grandparent of the mother was of Indian descent. About two years before, her menses, which had appeared when she was fourteen, stopped, and she began to "bloat." She had been moderately stout, being about five feet two or three inches, in height, and weighing about one hundred and twenty pounds. Coincidentally with other troubles to be mentioned, she began to grow stout very rapidly. She also at this time grew weak, and suffered from shortness of breath and great distension of the stomach. She was much troubled with constipation. Headache at this time supervened, attended by a sensation of fulness and throbbing at the vertex. At about the fifteenth month of this morbid state she was seized with epileptic fits, which were unaccompanied by the aura, and for a time was confined to bed much prostrated by a fever. Her heart, lungs, and abdominal viscera were found to be healthy. Under treatment she improved very much as to her dyspepsia and accompanying extreme flatulence, and the fits seemed to have ceased.

She became very obese ; she also suffered from distention of the abdomen as well marked as in a pregnant woman nearly, if not quite, at term. The girl had been brought by her mistress to Dr. Foster, at the Woman's Hospital, with the view of determining whether she was pregnant. Dr. Foster found her uterus normal. The circumference around the abdomen at the umbilicus, over clothes not very voluminous, was nearly fifty inches. She then weighed within a fraction of one hundred and seventy pounds. The face was fatter than usual, and of a darker color than that of the body and extremities, which was that of a mulatto. On the prominence of the right shoulder was a deep furrow, into which the tip of the finger could be imbedded and moved its entire length, making it clear to the mind that there was a marked loss of tissue. This furrow was of a dark-brown color and covered with what was undoubtedly a greatly atrophied skin, the epidermis of which to the eye presented no abnormality. Running down each arm, more numerous on the left than on the right, were several large and serpentine lines of similar furrows. Those on the left arm were of the dark-brown color spoken of, while those on the right were not so deep nor so dark in color. It was evident that the distension and even disruption of the skin was not so great as had occurred on the left side. The integument over the axillary fold was also the seat of similar sinuous furrows or gaps in the skin, which extended to the mammæ, the whole surface of which was seared with large and small ones. On the abdomen was seen, showing better on the right than on the left side the largest and longest furrows on the body. They were fully as large on the left side, but did not show so well in the photograph, owing to the light. The tips of the fingers could here traverse gaps fully six inches long, and be deeply imbedded in their whole course. Over the crests of the ilium, on the anterior outer and interior surface of the thighs, numerous furrows could be seen, though here they were less deep and wide, and many of lighter color. Some coincided with the vertical axis of the body, while others spread out fan-like from the iliac crests toward the gluteal region and the thighs. Others, again, pointed diagonally inward, while lower down were many which were developed transversely to the long axis of the

limb. About the anterior surface of the knee and leg were many smaller furrows arranged in various directions, chiefly transverse and diagonal. The furrows on the posterior surface of the body were less marked, but very numerous. On the back of the arms they were large, dark, and transversely placed. On the back were many thin, shallow, and light-colored furrows ; but on the gluteal region they were more marked, being rather deep, and running in directions serpentine and diagonally upward and downward from the median line of the body. On the posterior surface of the thighs and legs were numerous larger and smaller furrows, arranged nearly at right angles with the vertical axis of the limbs. When seen one year after the invasion of the process of stretching and disruption of the skin, many of the larger furrows were of a deep brownish-red color, and the depressions were not nearly so well marked. Many of the narrow furrows, which, a year later, were of a dim pearly color, were then lines of decidedly pinkish and slightly thickened skin, such as we sometimes may see on the integument of persons suffering from urticaria when we draw the point of a pin slightly over it. In the larger furrows the redness during the year had given place to the deep-brown tint, while the pinkish lines had faded and become nearly of a silvery white. It is probable that in time blanching will take place, to a certain extent, in the deep-brown gaps, which will come to resemble the lineæ albicantes of persons having white integument. During the year there had been a very marked loss of adipose tissue all over the body, and the protuberance of the abdomen was much less, its circumference being forty-two inches. As regards the subjective symptoms of these extensive dermal lesions, I may say that they were never so severe as might be expected. In the early stage the young woman suffered from slight heat and pruritus of the integument, which, later on, were replaced by a sensation of mild soreness.

The thin and pale lines of atrophy are due to more or less stretching of the more superficial bundles of rhomboidally arranged white and elastic fibrous tissues. In the larger gaps and furrows these more superficial fibres are completely ruptured, and the atrophic striæ are seated between large and deep bundles of fibres

which have undergone extensive longitudinal disruption.—*N. Y. Med. Jour.*, Jan. 2, 1886.

SURGERY.

Weir on Colectomy for Carcinoma.

—Dr. Weir records a case of successful resection of the sigmoid flexure of the colon, the patient being alive ten weeks and a half after the performance of the operation, with a probability of recurrence of the malignant disease. As the safe approximation of the divided ends of the bowel would have been a matter of great difficulty, an artificial anus was established by suturing the upper end of the gut to the superior angle of the abdominal wound.

In connection with his case, Dr. Weir tabulates thirty-five examples of excision of a portion of the intestine for carcinoma, in four of which the small intestine was involved, and in one of which the result of the operation is unknown. Excluding those cases, and adding two additional instances of which we have notes—the transverse colon being affected in one, and the sigmoid flexure in the other—there are on record at least thirty-two examples of colectomy for carcinoma. With this experience before us, the questions which naturally arise are, first, whether the operation should be undertaken at all, and, secondly, whether it is better, after the resection of the gut, to suture and return the ends, or establish an artificial anus.

That the operation is a most serious one is shown by the direct mortality of fifty per cent., sixteen of the thirty-two patients having died, and an equal number having recovered. Of the sixteen cases of recovery, six are reported a few weeks after the performance of the operation, thereby leaving ten cases in which the final result is known. In seven of these the patients died of recurrence in from six to twenty-four months, or in eight months on an average; two were living with recurrence; and one remained well for four years. Hence, fifty per cent. of the patients die from the operation; the disease recurs in ninety per cent.; and a cure is effected in less than four per cent. In view of these results, the operation has certainly proved to be a most unpromising one.

Should, however, an operation be decided upon, the disposal of the divided ends of the bowel is a matter of serious consideration. Of twenty-four cases in which the gut was sutured and returned, eleven, or 46.8 per cent., perished; while in eight in which an artificial anus was formed, five, or 62.5 per cent., died. The evidence seems, therefore, to be in favor of colectomy and enterorrhaphy, but, as Weir points out, in one half of the cases of the establishment of an artificial anus, that procedure was resorted to because so much of the bowel had been removed as to render it impossible to approximate the divided ends, through which the operation was rendered more hazardous. Suturing and dropping the gut is undoubtedly the more tedious procedure, and requires greater attention to details, and, in addition, escape of the intestinal contents into the peritoneal cavity is very liable to occur unless the stitches are inserted with the greatest care. For these reasons, we agree with Weir that it is wiser to establish an artificial anus.—*Edit., Med. News*, Feb. 13, 1886.

Dennis on Laparotomy in the Treatment of Penetrating Wounds and Visceral Injuries of the Abdomen.—The conclusions at which I have arrived from a study of those cases which have occurred to me recently, together with many others during the past few years, and also from those cases reported by other surgeons, are these:

First. That penetrating stab wounds of the abdomen are less fatal than penetrating gunshot wounds, but that the former are fatal in too great numbers to content us with the older methods of treatment.

Second. That if the stab wound had injured the intestine or any abdominal organ, laparotomy is indicated. That it may be indicated also in cases where the gut is not penetrated, but where the gut may become twisted as a result of the stab wound.

Third. That in a penetrating stab wound regarding which doubt exists, the diagnosis should be made certain at once, in order to pursue a proper line of treatment. The indications for laparotomy should be extended also to injuries of any organs within the abdomen.

Fourth. That laparotomy offers no great additional danger to the patient, if properly performed under the strictest antiseptic precautions.

Fifth. That while the number of exploratory laparotomies in stab wounds of the abdomen afford insufficient data upon which to establish any fixed rule of practice, the same principle which is recognized in the performance of laparotomy for gunshot wounds of the abdomen is also applicable to penetrating stab wounds.

Sixth. That the enlargement of the original wound for an examination of the peritoneal cavity will not enable the surgeon to exclude in all cases fecal extravasation, perforation, volvulus, or hemorrhage. These may all exist, and no evidences of their presence be manifest upon inspection through a small opening. My own experience accords with that of Prof. Weir, that enlarging the wound may or may not offer the essential knowledge.

Seventh. The size, shape, character, and velocity of the bullet, the attitude of the patient, the kind of weapon used to produce a stab wound, seem to me to influence the question of laparotomy. Any and all of these injuries are likely to produce perforation: and if there is any value in abdominal section, it should be promptly performed, irrespective of the facts connected with the penetrating abdominal wounds.

Eighth. It is impossible to have a fatal hemorrhage from the large venous trunks in the abdomen, and this hemorrhage not be discovered until the cavity is about to be closed, when an attempt is made to sponge out the bottom of the peritoneal cavity. This has occurred to me in two cases, in one of which I have closed seven openings, and in the other I had examined the viscera in the cavity. The hemorrhage was checked at the time of the opening, and was not apparent until the close of the operation.

Ninth. That the sutures, if properly applied, will close the perforation in every case, no matter how lacerated these wounds are. The sutures will close the wound in case of resection of the gut, so that no leakage will occur if water is forced through the sutured intestine.

Tenth. The success of laparotomy is to be attained where every arrangement is complete and perfect. Every thing depends upon the preparation which is made from this operation, and the antiseptic conditions under which it is performed. The shock, the perforations, the resections of

injured parts of the canal, and the after-treatment, are all important steps in this great operation; but the one obstacle yet to be overcome in the management of these cases is the control of the hemorrhage from large venous trunks, and until this object is accomplished, the science of surgery in this operation cannot be said to have arrived at a state of perfection.

In the present unsettled state of opinion, it would seem best not to perform this operation in medico-legal cases without the full sanction and support of a consultation. The courts of law have recently agitated the question of the propriety and the justifiability of this measure in penetrating wounds, and the legal profession have already upon several occasions, to my personal knowledge, found refuge in this operation to defend a criminal on trial for murder.—*Med. News*, March 6, 1886.

Alexander on Cholecystotomy.—The patient, a youngish woman, was admitted into the Workhouse Hospital a year ago with abdominal pain. Rest and poultices relieved her, so that she went out; but she again returned, and rest and poultices were again made use of. Whilst under treatment, however, a tumor was felt below the liver. This was roundish and painful, and the patient was feverish. On Oct. 7th the tumor was increasing in size, and he feared there was danger of its bursting into the peritoneum. Sir Spencer Wells, who was visiting the hospital, saw the case, and agreed with the diagnosis. At the operation he made an incision in the semilunar line, when deep fluctuation was felt. On reaching the cyst it was carefully stitched to the skin by 12 or 14 sutures, and then opened, and a drainage tube inserted. Pus escaped for a few days, then brown serum, and then clear serum, and the wound afterwards closed. The case was a contrast to one he saw some years ago in the workhouse when he was a resident medical officer. In that case the cyst burst first into the duodenum, then through the abdominal parieties, so that all the food escaped out of the fistula almost as soon as swallowed. The patient died. In the present case there were neither gallstones nor jaundice.—*Med. Press and Circ.*, Jan. 6, 1886.

Casper on a New Treatment of Gonorrhœa Chronica by Means of

Grooved Bougies.—I constructed nickle-plated bougies with grooves. These bougies are slightly conical and twenty-five centimetres in length. They have six grooves, which are about a millimetre and a half deep, and become shallower towards the point, stopping entirely at about five centimetres from the point, so that the front part of the bougie is entirely smooth. Into the grooves of these bougies I pour a paste, which hardens at the ordinary air temperature. With respect to the composition of the paste, I recommend the following:—Cacao butter, 100 parts; nitrate of silver, 1 to 1.5 part; balsam of copaiba, 2 parts. I tried, also, other preparations, such as resorcin, iodoform, zinc, and iod-natrium, but found them all inferior to the nitrate of silver. With regard to the preparation of the bougies, I must lay stress on the fact that the slave must not be heated too much, for in that case the nitrate of silver would be reduced to silver and would be inefficient. Therefore, put about two teaspoonfuls of the paste into a small vessel, and heat it slowly and carefully. The vessel must not become so warm that it cannot be touched with the bare hand. Such a degree of heat is not necessary to dissolve the paste, and, as I have shown, is injurious. Neither is it necessary to wait until the entire contents of the vessel are melted, for if so the already dissolved salve becomes too hot and reduced. After dissolving, the salve is poured over the bougie, which is horizontally laid over a vessel to catch the drippings. After the salve has become hardened the bougie is smoothed with any sharp-edged tool. Care must be taken that the smooth front part of the bougie is left uncovered by the salve. Before using, draw the bougie several times through the hand, the warmth of which will cause sufficient of the salve to melt to lubricate the metallic surface of the bougie. The smooth front part of the bougie is rubbed with glycerine, so that the instrument, if the size corresponds to the diameter of the urethra, will easily pass. The grooved bougie leads the salve beyond the narrowed places. At the temperature of the body the salve melts in one minute.

The greater efficiency of medicaments in this form over injections is clear, as the oily cacao butter will keep the ingredients in closer and longer contact than water.

As to the glands and laminae of the urethra, it is probable that the thick fluid matter enters them more easily after they have been dilated by the bougie. Of the bougies described, I use Nos. 18 to 23, French. Ten to twenty applications will cure almost any case of chronic gonorrhoea.—*Lancet*, Feb. 6, 1886.

Parker on Sarcoma of Testicle in an Infant aged Seven Months—Removal.

—The left testicle of an otherwise healthy-looking infant, aged seven months, was symmetrically enlarged by malignant disease until its size had become about $2 \times 1\frac{1}{2} \times 1\frac{1}{2}$ inches. Two days before operation the child had been brought to the Royal Infirmary on account of a scrotal swelling, which the mother had noticed ever since the child was two weeks old. Examination showed that the scrotal swelling was contained in the left division, though hanging in a median position; and that the right division, with its normal testicle, was stretched over the other. The swelling was soft and elastic, like a hydrocele, though not translucent on superficial examination. Puncture with an exploring trocar was attended, in two places, with no more issue than a drop or two of clear slightly sticky juice, colorless at first, and afterwards mixed with blood, together with a feeling of solid, though soft, resistance to the stab. The tumor thus proving almost certainly solid, and the mucus obtained from it giving a clue to its probable myxosarcomatous composition, the mother was advised to permit operation, which was performed on the following day. Incision of the scrotum in the left front revealed the enlarged testicle, behind a sound tunica vaginalis, shut off from the abdominal peritoneum at the inguinal canal only, below which it was spread over the cord and testicle. The tunica albuginea was covered with injected blood-vessels, and on incision into the organ its soft medullary appearance was manifest. The cord was tied with catgut, and castration at once completed. The naked-eye appearance of the cut section was the mottled white, pink, and yellow, indicating a soft sarcoma. No pelvic or other abdominal tumor has yet appeared in the case.—*Liverpool Med.-Chir. Jour.*, Jan., 1886.

Cleland on Albuminate of Corrosive Sublimate as a Surgical Dressing.

—My attention was directed to this powerful

germicide by reading a most interesting article on the value of an aluminate of corrosive sublimate by Professor Sir Joseph Lister in the number of the *Lancet*, for October 23, 1885. In it the Professor, after numerous experiments, recommends a 1 per cent. solution as the one combining the two advantages of being efficacious and unirritating to the tissues. Writing from London, and having in view the large requirements of a general hospital, he recommends the using of serum from horse's blood as the menstruum for the corrosive sublimate. The wants of the general practitioner would necessarily be different, namely, what he would require would be some ordinary vehicle that any chemist could procure without difficulty, and of whose purity there could be but little doubt. It occurred to me that the simplest and most commonplace article would be the albumen ovi of the pharmacopœia. As a rule an ordinary egg will furnish one ounce of albumen in the form of white of egg; and one ounce of the aluminate would, in ordinary circumstances, be ample to prescribe at one time for any ordinary surgical case. Since that time I have put the idea into practice and have been so pleased with the result that I have thought it worth while, this evening, to draw the members' special attention to Prof. Lister's important discovery. In the sample that I have brought you will notice that it is of a creamy consistence. This, of course, would render it unsuitable for injecting into cavities, and therefore my experience of it is limited to its application to superficial wounds and ulcerations of the surface. The method of using it that I have found most convenient, is to paint the surface of the wound or ulcer with the aluminate, place a piece of protective over, and then a pad of some antiseptic wool to catch and absorb any discharge. Dressed in this manner it will be unnecessary to disturb the parts for a period varying from three or four days to a week or ten days.

The advantages of the dressing are:

1. Infrequency of dressing in common with all powerful germicides.
2. Simplicity.
3. Powerful deodorizing qualities.
4. Absence of all irritating properties.
5. Small cicatrix that is left.—*Australas. Med. Gaz.*, Dec., 1885.

OBSTETRICS AND DISEASES OF WOMEN.

Leake on Pessaries: Are We Justified in Using them? Indications for, and Methods for Their Application.

—The following conclusions seem warranted:

First. That, whilst there exists great difference of views as to the expediency of using pessaries, the practical gynecologist also is influenced in his opinions by his own individual experience, and will not servilely bow to the authority of those, who perhaps, reject such aids on insufficient grounds.

Second. That the classical pressure symptoms, including weight in pelvis, sacralgia, bladder and rectal irritation, difficulty and pain on locomotion, dragging pains in hips and lower abdomen, etc., combined or uncombined with systemic effects, are relieved by a skilful adjustment of pessaries, and must be continued to be held as an indication for their employment.

Third. That, in all cases of anæmia, neurasthenia, hysteria, presenting themselves, the cause may be located in some displacement of the pelvic organs, and this point should be determined by immediate examination.

Fourth. That due regard must be had to the natural mobility and normal position of the uterus in the placing of pessaries.

Fifth. That the Hodge pessary and its modifications are the most scientific and rational instrument we possess, and should be used, if possible, to the exclusion of all others.

Sixth. That, contrary to the general view, retro-flexion can be redressed and maintained in position by a skilful adjustment of the traction-lever pessary.

Seventh. That pessaries should be fitted and placed with the patient in Sim's position, this being the most favorable for such procedure.

Eighth. That while the evidence thus far has been discouraging as to the curability of uterine displacements by means of pessaries, we must at least acknowledge their powerful aid as palliatives, and we are justified in believing that the future statistician will demonstrate their greater efficacy in tables showing permanent results.—*Texas Cour.-Record of Med.*, Jan., 1886.

Mundé on the Treatment of Pelvic Abscess in Women.—The conclusions

to be reached from experience are the following :

1. Pelvic abscess in the female is not very common, in proportion to the great frequency of pelvic exudations, and probably does not occur in more than ten per cent. of all cases, the majority of exudations terminating in spontaneous absorption.

2. Pelvic abscess may be either extra-peritoneal, the result of cellulitis (by far the most common variety), or intra-peritoneal, the consequence of pelvic peritonitis. If intra-peritoneal, the adhesive inflammation between pelvic viscera and intestines may so seal the abscess-cavity as to render it *practically extra-peritoneal*.

Abscess of the ovary and pyo-salpinx do not belong in the category of "pelvic abscess" proper, and do not fall under the same therapeutic rules, unless when, by agglutination to the abdominal wall or to Douglas' pouch, they become virtually extra-peritoneal.

3. Small deep-seated pelvic abscess, not exceeding a capacity of two ounces, and minute multiple abscesses in the cellular tissue, can often be permanently cured by evacuating the pus thoroughly with the aspirator. The surrounding exudation is then rapidly absorbed.

4. About one-half of the abscesses open spontaneously into the vagina, rectum, bladder, or through the abdominal wall and ischiatic fossa. These cases may gradually recover without treatment, or the sinuses may persist until closed by surgical interference.

5. Abscesses containing more than two ounces of pus should be opened by free incision along an exploring needle or grooved director, cleared of debris by finger or blunt curette, and drained and irrigated, if necessary, through a drainage tube.

6. This incision should be made at the spot where the pus points most distinctly, which is usually the vaginal vault.

7. In a certain number of cases the pus points through the abdominal wall, generally in the iliac fossa, and the incision should then be ample, and free drainage should be secured.

8. When the pus has burrowed deep into the pelvic cavity, and a probe can be passed from the abdominal incision down to the vaginal roof, mere abdomino-cutaneous drainage will not suffice, and a counter-

opening must be made in the vagina, and a drainage tube carried through from the abdominal wound into the vagina. This drainage tube may have to be worn for months. In making this incision, care should be taken not to wound the bladder.

9. The opening of a pelvic abscess which points through the abdominal wall does not differ from, and is no more dangerous than, the same operation elsewhere on the cutaneous surface of the body. It is not an "abdominal section" or a "laparotomy," in the sense that these terms are now used to indicate the surgical opening of the peritoneal cavity.

10. Chronic pelvis abscesses which have burst spontaneously, and have discharged through the vagina, rectum, or elsewhere for months or years, are exceedingly difficult to cure. This is particularly the case when the opening is high up in the rectum. A counter-opening in the vagina, or enlarging the opening if there situated, the curette, stimulant irrigation, etc., may occasionally succeed, but usually fail.

10. A perityphlitic abscess may point through the abdominal wall, and simulate a pelvic abscess proper. Aspiration will settle the diagnosis; the treatment is the same.

11. The majority of cases of pelvic abscess recover; at least the mortality is small.—*Am. Jour. Obstet.*, etc., Feb., 1886.

Extraordinary if True.—Expressing considerable doubt as to its veracity, the Naples correspondent of the *Paris Register* writes:—"About twenty-five miles from here, and by rail two or three stations beyond Pompeii, is the historical city of Nocera. In it lives Maddalena Granata, æt. 47, who was married at the age of 28 to a peasant, just nineteen years ago. Maddalena Granata has given birth to, either dead or living, fifty-two children, forty-nine of whom were males. She enjoys florid health, is robust, and twenty-four hours after her last accouchement was ready to go out to her accustomed labor in the field. She has no hesitancy in conversing with any one about her extraordinary prolificness. Her physician, Dr. de Sanctis of Nocera, says that there is not the least exaggeration in these statements. Has any one ever heard of such phenomenal fecundity in the whole history of maternity—fifty-two children, alive or dead, in nineteen years! She has had triplets fifteen times."—*Med. Press and Circ.*, Jan. 28, 1886.

Emmet on a Case of Persistent Menstruation in a Lady Seventy Years of Age.—A lady of 70, had menstruated regularly every month since the age of sixteen, except when she was pregnant, and during a certain interval after she had reached the age of forty-five or fifty. Her daughter, who was aged fifty, also had a regular monthly flow. The mother was, as far as he knew, in perfect health, and had been a widow for thirty years. He regarded the case as a very unusual one.—*Am. Jour. Obstet.*, etc., Feb., 1886.

McLean on the Management of Placenta Previa.—In conclusion, I would offer the following rules as appearing to me best for our guidance in general, in dealing with placenta previa.

First. In any case avoid the application of all chemical styptics, which only clog the vagina with inert coagula, and do not prevent hemorrhage. At the very first, the patient should be put in a state of absolute rest—body and mind—and a mild opiate is often desirable at this stage to quiet irritation.

Second. Inasmuch as the dangers from hemorrhage are greater than all else to both mother and child, at the earliest moment preparations should be made to induce premature labor, and labor being once started, the case should be closely watched to its termination by the accoucheur.

Third. In primiparæ, and mothers with rigid tissues, the *vagina* should be well distended, by either the colpeurynter or tampon, as an adjuvant to the cervical dilatation.

Fourth. In the majority of cases generally, and in all cases especially where there is reason to believe that rapid delivery may be required, it is more safe to rely upon the *thorough, continuous* hydrostatic pressure of a Barnes' dilator than on pressure by the fetal parts.

Fifth. Where the implantation is only lateral or partial, and where there is no object in hurrying the labor, bipolar version, drawing down a foot, and leaving one thigh to occlude and dilate the os, may be practised according to the method of Braxton Hicks, except in cases where the head presents well at the os, when

Sixth, the membrane should be ruptured, the waters evacuated, and the head encouraged to engage in the cervico-vaginal canal.

Seventh. In the majority of cases, podalic version is to be preferred to application of the forceps within the os.

Eighth. In some cases, in the absence of sufficient assistance or the necessary instruments, the complete vaginal tampon, in part or wholly of cotton, may be applied and left *in situ* until (within a reasonable time) it is dislodged by uterine contractions and the voluntary efforts of the mother. In case of favorable presentation—occiput or breech—the tampon will not materially obstruct the descent of the child, and in some cases the tampon, placenta, and child will be expelled rapidly and safely without artificial assistance.

Ninth. The dangers of septic infection by means of the tampon or India-rubber dilators are so slight, if properly used, as not to be considered as seriously impairing their great value.

Tenth. Whenever it is possible, dilatation and delivery ought to be *deliberately* accomplished, in order to avoid maternal lacerations.

Finally. As cases of placenta previa offer special dangers from post-partum hemorrhages, septicæmia, etc., the greatest care must be exercised in every detail of operation and nursing, to avoid conveying septic material to the system of the mother.

Absolute cleanliness, rather than chemical substitutes for that virtue, should be our constant companion in the practice of the obstetric art.—*Am. Jour. Obstet.*, etc. March, 1886.

DISEASES OF THE MOUTH, NOSE, AND THROAT.

Mackenzie on the Production of the So-called "Rose Cold" by Means of an Artificial Rose.—Decidedly sceptical as to the power of pollen to produce a paroxysm, I practised the following deception upon a patient, which still further confirmed me in that belief. I produced the artificial rose from behind a screen where it had been secreted, and, sitting before her, held it in my hand, at the same time continuing the conversation. In the course of a minute she said she felt that she must sneeze. This sensation was followed almost immediately by a tickling and intense itching in the back of the throat and at the end of the nose. The nasal passages, at the same time, became suddenly obstructed, and the voice assumed a hoarse, nasal tone. In less than two minutes the puncta lachrymalia began to itch violently, the right and

afterward the left conjunctiva became intensely hyperæmic, and photophobia and increased lachrymation supervened. To these symptoms were added, almost immediately, itching in the auditory meatuses and the secretion of a thin fluid in the previously dry nasal passages. In a few minutes the feeling of oppression in the chest began, with slight embarrassment of respiration. In other words, in the space of five minutes she was suffering from a severe coryza, the counterpart of that which the presence of natural roses invariably produced in her case. An examination of the throat and nasal passages was then made. The right nostril was completely obstructed by the swollen, reddened, irritable turbinated structures; the left was only slightly pervious to the air-current; both were filled with a serous-looking fluid. The mucous membrane of the throat was also injected, but did not exhibit the same amount of redness and irritability found in the nasal passages. As the discomfort was rapidly increasing, and as I considered the result of the experiment sufficiently satisfactory, I removed the rose and placed it in a distant part of the room. When told that the rose was an artificial one, her amazement was great, and her incredulity on the subject was only removed upon personal examination of the counterfeit flower. She left my office with a severe coryza, but also with the assurance that her disease was not altogether irremediable. A few days later, she called to see me again, and on that occasion she buried her nostrils in a large fragrant specimen of the genuine article and inhaled its pollen without the slightest tendency to the production of reflex acts.—*Am. Four. Med. Science*, Jan., 1886.

Samuels on a Remedy for Hay-Fever.—For years he had been tormented every summer with an aggravated form of hay-fever, for which he had tried in vain every remedy that was brought to his notice, but that he finally hit upon an ointment made after the following formula :

Powdered camphor,	} each	. 1 drachm.
Chloroform,		
Extract of belladonna . . .		4 grains.
Bicarbonate of sodium . . .		20 "
Benzoinated lard		1 ounce.

The camphor, chloroform, and extract of belladonna are first rubbed up, the benzoinated lard is then added, and finally the bicarbonate of sodium. The ointment is applied freely within the nostrils with the

little finger. It gave him speedy and permanent relief.—*N. Y. Med. Four.*, March 6, 1886.

Rice on Adhesion of the Soft Palate to the Pharynx.—I dilated the passage with steel sounds until it was large enough to admit the finger (which, after all, is the best dilator). Traction was then made until the opening measured three fourths of an inch across. A small curved sound was passed for the purpose of exploring the lateral attachments. On the right side the point of the sound could be carried downward behind the posterior pillars for a considerable distance. Using the sound as a guide, I burned through to it, with the galvano-cautery knife, at the junction of the mucous surfaces, establishing a second communication. A platinum wire was passed through the opening just made, and drawn out through the original aperture into the mouth. The loop was threaded through an insulated canula attached to a cautery battery. The adhesions included within the wire were separated by shortening the loop and passing a current through it. The canula was bent at right angles, point upward, so that the snare was tightened in a direction parallel with the posterior wall of the pharynx.

I repeated the same procedure in dissecting off the uvula, and twice more in detaching the left side of the velum. Here it was necessary to burn through more tissue, as the adhesions extended higher up. Division of the bands near the left Eustachian orifice removed materially the tinnitus. There was no hemorrhage. Traction was constantly made with the finger by the patient as well as myself. In addition, she used a hard-rubber palate-hook every few hours. For a time I had the patient wear a plate of hard rubber of proper size, one eighth of an inch thick, with rounded edges, suspended by cords through the nostrils. It gave little discomfort, and may have aided in keeping the surfaces apart, though I consider continued traction of the soft palate the most important means of preventing re-adhesion. There is far less danger of secondary union when the tissues are separated with the galvano-cautery loop, as the edges are thus thoroughly cauterized. The patient was able to breathe through the nose comfortably, and the sense of smell was restored to a large extent.—*N. Y. Med. Four.*, Dec. 26, 1885.

Hooper on Adenoid Vegetations in the Naso-Pharyngeal Cavity.—After having tried most of the methods recommended, the following has yielded the best results in my own hands, and can be employed in the majority of instances. The patient is easily taught to hold the tongue well depressed in the floor of the mouth, by means of one of the ordinary spatulas—preferably, Türck's. The operator now has both hands free, one for the rhinoscopic mirror, and the other for the post-nasal cutting forceps, either Cohen's or Loewenberg's. It is necessary to have these forceps of different sizes and curves, to suit individual cases. A strong light being reflected into the cavity, the instrument, guided by the image in the mirror, grasps the vegetation, and if it be soft or pendulous, it is torn off, care being taken not to use force; or if it be hard, and of the flat variety, it is cut off. Occasionally too large a quantity of the mass becomes engaged between the blades of the forceps, and, not coming away with easy traction, the blades should be released and reapplied to a smaller portion of it.

In conjunction with this method, one of the forms of nasal snares, or *écraseurs*, armed with No. 5 piano-wire, is very useful to remove growths which are too tough to be brought away with the forceps. The snare being introduced anteriorly through the previously cocaineized nostril, the loop can be watched in the rhinoscopic mirror, and directed to the desired vegetation or pharyngeal tonsil. When the naso-pharyngeal cavity is very long, and the remaining portions of the growths are high up and on the sides, the snare used as described is a convenient way to get rid of them. If one operates in this manner, every movement of the forceps or the snare can be watched, and a few pieces can be removed at each sitting until the cavity is completely freed of the growths. The patient's visits are renewed sometimes daily, or at intervals of two or three days, without apprehension or dread of the operation, as the pain is usually slight if healthy parts are not nipped, as they ought not to be if the rhinoscope is used. The hemorrhage, more or less, according to the individual, has always been insignificant in my own cases. Once thoroughly eradicated, I have never seen a recurrence of the growths. But we may meet with these adenoid vegetations in

children whose naso-pharyngeal cavities are too small to admit of the procedures just mentioned, or who obstinately refuse all co-operation.

When they are very refractory or nervous, it is advisable to administer ether, and, with the post-nasal forceps, remove the entire mass at one sitting. The specimens I show you give an idea of the quantity contained in the naso-pharyngeal cavities of four children from six to eight years of age, who were recently relieved of their exuberant tissue in this manner. Rhinoscopy being out of the question in these cases, the practised hand can feel when the end of the forceps is embedded in the tissue. It is well to hold the soft palate forward by means of a palate-hook, or, if space permits, the forceps may be guided by the index finger of the opposite hand. The hemorrhage may be considerable, but ceases immediately. Other children, ranging from the ages of four to fifteen, I have found most tractable, and when old enough to comprehend the nature of their trouble and the object of the operation, only too willing to lend their aid.

For the after-treatment of the seat of the vegetations, a mild astringent and detergent wash is all that is required, while the treatment of the complications in the nose or other parts, must be conducted on general principles. There is an unfortunate belief prevailing among the laity, that that bugbear "*catarrh*" is some incurable disease, and one we must submit to with resignation. Little cognizance is taken of the different varieties of nasal affections, or of the advance that has been made in recent years in the surgical treatment of the catarrhal diseases of this important organ. In typical cases of adenoid vegetations, the symptoms of "*catarrh*" of the most aggravated form may be present, yet the good effects of treatment are noticeable, even before it is completed; and I think it may be safely said that there is no other disease in the domain of him who confines himself to the upper respiratory tract, the treatment of which is attended with more satisfaction to the operator, or with more permanent relief to the patient.—*Bost. Med. and Surg. Jour.*, March 4, 1886.

Ingals on Intubation of the Glottis for Membranous Laryngitis.—Looking at the intubation of the glottis from our present standpoint, it seems well adapted for the following cases :

1. For diphtheritic and croupous stenosis of the larynx occurring in children under $3\frac{1}{2}$ years of age.

2. For cases of these same affections in older children in which from any cause the physician wishes to defer the operation of tracheotomy.

3. For those cases in which consent to tracheotomy cannot be obtained.

4. For those cases in which proper nursing could not be secured.

5. For severe cases of spasmodic croup in children less than 10 years of age.

6. For simple stenosis of the larynx, not diphtheritic, in children.

7. With proper sized tubes it might be of value in the treatment of various forms of laryngeal stenosis in adults.

I have no hesitation in saying that Dr. O'Dwyer's instruments for this operation are far preferable to any of the numerous instruments for rapid tracheotomy. I can see no good reason why the tubes for older children may not be made much larger than they now are, and if this be practicable the greatest objection to this operation will be removed; however, there will be cases in which the tube may be coughed out, and in which, if the physician leaves the patient, the child may strangle before he can be found to return the tube. In such cases the physician would sometimes be culpable for not having done tracheotomy, and thus insured an opening for respiration.

The ease with which this method can be carried out will doubtless secure its adoption in a large number of cases in which tracheotomy would not be advised, and thus it may be the direct cause of saving many lives. On the other hand, we must not forget that these very features are a source of danger, leading the physician to rely on this method in cases in which nothing less than tracheotomy could be of any avail, and thus many lives may be lost. I believe, however, that the method will do much more good than harm, and that within a few years it will find its proper place among the agencies for relieving suffering and prolonging human life. Even now I have such confidence in the operation that I think every community should have a set of these or similar instruments in the hands of some physician who has the good judgment to know when to use it.—*Four. Am. Med. Ass'n*, Feb. 6, 1886.

Gleitsmann on the Treatment of Laryngeal Phthisis.—1. Lactic acid is a valuable remedy in most cases of phthisical ulceration of the larynx. The ulcers heal rapidly and the distressing pain in swallowing is thereby relieved.

2. Its use does not prevent the formation of new infiltrations, or ulcerations.

3. When not combined with other proceedings, it has little or no effect on infiltrations, which are covered by intact mucous membrane and epithelium.—*N. Y. Med. Record*, Jan. 16, 1886.

Newey on Acute Glossitis.—On Oct. 14, 1885, I was called to see a case of swollen tongue. The subject was a little girl, aged eight, pale and sickly-looking, the daughter of a miner; she had always enjoyed fair health up to this time. The family history was good. I found, on examination, the tongue half an inch thicker than natural, and covered with a white fur; it was not painful to the touch; deglutition was difficult and caused some pain: the pulse was 160; the temperature being 103.1° . There was some soreness complained of on pressing over the region of the right tonsil. The tonsil was not enlarged; saliva dribbled copiously from the mouth, the floor of which was quite natural. There was no swelling of glands in the neck, and no apparent cause of the enlargement of the tongue. Inquiry was made as regards the patient ever having taken mercury, etc., but with negative results. She stated that she had eaten a quantity of cheap colored sweets the day before, and had afterwards vomited. I ordered the usual remedies for glossitis and ice to suck. I saw her again the next day, Oct. 15th. The swelling of the tongue had increased quite half an inch more; the patient could not close the mouth on account of the great swelling and protrusion of the tongue; she had taken no food during the day; she could not swallow even a little beef-tea; the dyspnoea was urgent; she was in an extremely weak condition, the constitutional disturbance being great. The voice was quite abolished, so I resolved at once to deeply scarify the anterior surface of the tongue. I wrapped a tonsil bistoury with lint to within half an inch of the end, and made two incisions, longitudinally, each side of the raphe of the tongue; the mouth immediately filled with curdy pus and venous blood. I may say there was no sense of fluctuation to be felt before the operation.

I ordered an enema of beef-tea, brandy, and egg, and a gargle of tannic acid and glycerine, to be painted over the tongue and the back of the throat, with a mixture of bark and chlorate of potash internally. I saw her the next day, Oct. 16th. The swelling had decreased half an inch; she could take beef-tea and milk through a feeder; she slept well; the tongue was quite normal, and the incisions healed; the bowels acted four days after the operation. The patient appeared quite well, but weak. Ordered cod-liver oil. She has remained weak ever since.—*Lancet*, Jan. 9, 1886.

Lunn on Three Cases of Excision of the Tongue.—The first was one of epithelioma of the tongue in a man aged 50. The tongue was removed by the *écraseur*, and the patient made an uninterrupted recovery. The operation was performed on November 27, 1884, and as yet no signs of recurrence had appeared. The second case was that of a man aged 75, who had the cancer of the right side of the tongue and enlarged glands under the lower jaw. The lower jaw was divided; and the whole tongue was easily removed by the galvanic *écraseur*, without any hemorrhage. The enlarged glands were also taken away. On the fourth day septic pneumonia appeared. He died on the eighth day after operation. The third patient, a man aged 42, had cancer of the tongue and floor of the mouth. In the operation, a chain-*écraseur* was used, and most of the growth was cut away with curved scissors. The right lingual artery was accidentally snipped with the scissors, and was tied with a cat-gut ligature. On the twelfth day, he got up. Recurrence took place, and the patient died five months and a half after the operation. No secondary deposits were found after death. Mr. Lunn said that in his next case he would follow Mr. Whitehead's method, as he did partially in the third case related. The chain-*écraseur* was difficult to manage, and sometimes the wire or chain broke. With regard to the galvanic *écraseur*, the separation of the eschar was liable to be followed by a secondary hemorrhage, and septic dangers were more to be feared than in other modes of operating. Division of the lower jaw materially increased the risk of the operation. In order to obtain room, it was best to cut the cheek as far back as the anterior border of the masseter muscle. The pa-

tient should be fed through the nose. Ice and a piece of lemon only should be placed in the mouth during the first few days, and no talking allowed. In the last case a solution of cocaine was painted over the tubing before it was used, and it was found that the patient bore the introduction of the tube into the nose much better.—*Br. Med. Jour.*, Feb. 13, 1886.

Manby on Fracture (?) of Thyroid Cartilage — Laryngotomy — Recovery.—A male, aged sixty-four, awoke from an alarming dream, and, springing out of bed, fell and struck the front of his neck against the sharp edge of a chairback. He stated that the "lump in the middle of the neck" was "driven in," and that he was almost suffocated, but ultimately succeeded in drawing "the lump" back into position with his thumb and forefinger.

On admission, he complained of increasing dyspnoea (which was "worse at times"), dysphagia, and a slight cough, with expectoration of blood-stained mucus. On examination of the patient's neck, the larynx was found to be median in position. Considerable swelling and ecchymosis were visible over the right side of the thyroid cartilage, the ecchymosis extending across the middle line at the level of the crico-thyroid membrane. No pain was complained of on handling the hyoid bone. Manipulation of the larynx was painful, but elicited no crepitus. Laryngoscopic examination (which was difficult by reason of dyspnoea) revealed no oedema glottidis, nor was any obstruction seen between the vocal cords. The latter were congested, and the right cord was a little nearer the middle line than the left. The patient's voice was hoarse and his respiration labored; both inspiration and expiration were noisy. The lower intercostal spaces receded with inspiration.

An hour after admission the patient, who had been put to bed in a warm ward, was seized with an attack of urgent dyspnoea, and became intensely cyanosed. Laryngotomy was immediately performed, without an anæsthetic, and a Fuller's bivalve tube introduced. The patient was placed in a steam tent, and the dyspnoea was markedly relieved.

The further progress of the case was favorable.—*Lancet*, Jan. 9, 1886.

DISEASES OF THE EYE AND EAR.

Badal on Extirpation of the Entire Lachrymal Gland, etc.—The author concludes :

1st. The orbital portion of the lachrymal gland is entirely isolated from the palpebral portion, and its complete extirpation is not difficult or dangerous.

2d. It is extremely difficult then to remove completely the accessory portion, disseminated and as it were lost in the substance of the lid.

3d. Removal of the orbital portion has no bad effect on lubrication of the eye, which only loses its power of weeping.

4th. It is possible that this portion of the gland secretes only tears properly speaking.

5th. The accessory gland, with the other glands of the lids, furnish regular and permanent secretions, with which the eye is moistened. If this be true, the part called accessory is really the most important.

6th. The excretory ducts of the two portions have numerous intercommunications.

7th. The removal of the palpebral portion is advisable when removal of the orbital portion does not cure a distressing stillidium.

8th. To find the palpebral lobes an incision is made along the external third of the orbital arch to a little below the palpebral fissure.

9th. In cases of incurable ectropion with abundant lachrymation, both lobules can be removed at one sitting by a similar incision extending from the middle of the orbit to the external commissure.—*Arch. d'Ophth.*, Oct., 1885.

Darier on Extirpation of the Lachrymal Gland.—The author concludes :

1st. That the operation is indicated in all cases where stillidium resists the usual treatment and when the passage of large sounds is not curative, and when cicatrization forbids a reestablishment of the natural passage.

2d. That the operation is not difficult nor dangerous with proper antisepsis.

Anæsthetization is necessary. No dryness of the eye appears to follow the operation.—*Gaz. Méd. de Paris*, Feb. 20, 1886.

Roosa on the Results of the Operation for Convergent Squint.—The author concludes :

1. The operation for convergent strabis-

mus is successful in removing the deformity in from seventy to eighty per cent. of the cases operated upon.

2. When complete control of the patient may be obtained, and as many tenotomies as are necessary are performed, this percentage may be easily raised to more than ninety-five.

3. No essential improvement of the vision of the squinting eye arises as a result of the operation.

4. After parallelism of the optic axis has been secured, glasses may be worn that, in some cases, give an increased vision in the former squinting eye.

5. The loss of sight in a squinting eye is probably a congenital amblyopia, the nature of which is not exactly, if at all, known, and which is as yet incurable.

6. No substitute has, as yet, been found for the division of the recti muscles for the cure of squint.—*Med. News*, Feb. 6, 1886.

Jones on Iodoform in the Treatment of Eye Disease.—I wish to point out the value of iodoform after cataract-extraction and in the treatment of ulcers of the cornea.

First, in a case of *cataract-extraction* which occurred lately in my private practice. There was no hitch at the operation, and the lens was removed successfully and the edges of the corneal wound were in excellent apposition. Every thing went on well till the second evening after the operation, when the lady struck her eye accidentally, and this set up violent pain, chemosis of the conjunctiva, and purulent infiltration of the wound. When I saw it next morning I must confess I anticipated complete panophthalmitis. First of all I removed all the infiltration from the edges of the wound with a pair of Graefe's forceps, and dusted well-powdered iodoform all over the wound, and the first application instantly arrested the purulent secretion and the advancement of the threatening mischief. Iodoform was applied daily for about ten days, and the ultimate result was a closed pupil with abundant room for an iridectomy at a later date with every prospect of a good visual result. I have not the slightest doubt that under ordinary treatment the eye would be quite lost.

In cases of *ulcers of the cornea*, I have tried it extensively with very satisfactory results ; the cases it is best suited for are those in which there is a sloughing ulcer or an ulcer with infiltrated edges. In these

cases it is desirable to scrape the slough or infiltration with a small spoon or knife, and then powder iodoform well over with a camel's-hair brush.

In order to insure a good result, the surgeon should see that the pupil is fully dilated before leaving the case, and before proceeding to scrape a few drops of a solution of cocaine, 3 per cent., should be dropped to render the eye quite anæsthetic. A drop of atropine should be instilled into the eye thrice daily, and a little iodoform dusted in night and morning. The improvement in a few days is really remarkable.

I have found iodoform of no use in cases of clean-cut, atonic ulcers, but I think if the edges were first carefully cauterized to cause a little slough, and then followed by the use of iodoform, that the cure of these very tedious cases would be expedited.

In *ulcers of the cornea with hypopyon* I have found iodoform of great value in promoting the healing and arresting suppuration. The plan adopted is to scrape the ulcer and make a corneal section below according to Saemisch's plan to evacuate the pus, and then powder the cornea well with iodoform.

I used it in one case where there were curious complications. A. G. suffered from gonorrhœal ophthalmia with abundant discharge, cornea suppurative, prognosis grave. On everting the lid I detected a chancre on the palpebral conjunctiva. The eye was kept very clean, iodoform powdered frequently, and mercury administered internally, and the result was restoration to normal sight.

Its use after enucleation and evisceration to prevent any suppuration or extension backwards is considerable.

I have found it useful after plastic operations on the eyelids, and in cases of cuts of the cornea to prevent sloughing.

From its use therefore after complicated cataract-extractions, in sloughing and infiltrated ulcers of the cornea, in ulcers of the cornea with hypopyon, after enucleation and evisceration, and in plastic operations, I venture to say we have in iodoform a most valuable remedy.—*Liverpool Med.-Chir. Jour.*, Jan., 1886.

Hewetson on Antiseptics in Operations on the Eye.—He dwelt on the value of the eucalyptus spray, which he suggested some time since as an additional

aid towards making cataract and other major operations on the eye completely antiseptic. He has observed in a large series of cataract-operations that there has been less irritation and pain following the operations, the wounds have healed more quickly, and mishaps, such as eyes suppurating after the performance of such operations in hospital as well as private cases, have largely decreased. In the case of cataract-operations the following precautions were taken: 1—Immediately before operation the eye was washed with carbolic lotion, 1 in 80. 2—Cocaine, if used, was applied in an aseptic solution. 3—All instruments were washed in carbolic lotion, 1 in 60. 4—The operations were performed under the eucalyptus air spray. 5—The eye was subsequently covered by a layer of salicylic silk enclosed in two layers of absorbent wool, and freely exposed to the eucalyptus spray.—*Lancet*, Feb. 13, 1886.

McKeon on Injection or Irrigation in the Extraction of Cataract.—I have used the irrigation method about thirty times, and the injection by the scoop-syringe forty-six times. The fluid used—distilled water previously boiled—has not caused panophthalmitis in a single instance. As to whether it may in the long run be better to use an antiseptic solution than pure water I cannot say, but am open to conviction, and after the testimony to the harmlessness of certain antiseptics borne by Dr. Wicherkiewicz and Professor Panas, I am ready to try.

I discarded the irrigation or gravitation bottle, and adopted definitely the method of injection by a scoop-syringe.

I venture to state my conviction, based on a review of my operative experience of the last fifteen years, that the injection, whether of water pure or medicated with suitable antiseptics, to clear out cortex, will be found so advantageous as to secure very quickly its general adoption. The advantages are many: a rapid clearing out of the cortex, the removal of cortex, which friction through the lids, pressure, and scoop could not effect; the removal of cortex concealed by the iris; the clearing of the wound and detection of tags of capsule; the diminution of the percentage of loss of vitreous; the shortening of the duration of the operation; less teasing and irritation; less iritis and irido-choroiditis from remnants left in the eye; less regard to maturity, cataracts being mature for the

injection operation when immature for others. If the section is large enough for easy expulsion of nucleus, there is no fear about getting out cortex whether the section be large or small, or whether aqueous be freely secreted or not. It is applicable, too, to all sorts of incisions large enough to admit easily the scoop, but I think as a general rule iridectomy should be performed.

With all these advantages we should have less panophthalmitis, suppuration of the cornea, slow healing, iritis, and other accidents after operation. Suppuration and other inflammations in eye surgery depend largely on the amount of traumatism and retention of cortex. We must not ignore, however, the occasional evil influence of septic germs, and I think ophthalmic surgeons are agreed as to the advisability of using antiseptic treatment as far as practicable.—*Lancet*, Feb. 13, 1886.

Contagious Ophthalmia in Public Institutions.—Dr. R. H. Derby, of the committee appointed to make investigations regarding contagious ophthalmia in the asylums and residential schools of New York, said that on the whole the condition of the asylums was not better than at the time of the preliminary report in June last. He read the detailed report regarding three institutions in the city into which children were received to the number of about one thousand, and nearly three hundred of the entire number had contagious eye disease. The ventilation, sewerage, and general sanitary condition, was not such as it should be. The committee recommended an enactment by the Legislature providing for a physician attaché to each institution receiving children, who should be required to examine the inmates and those about to be admitted with regard to any contagious or infectious disease, particularly eye or skin disease; and it should be compulsory on the authorities of the institution to provide suitable quarantine for all such cases. The minimum of cubic air space for each inmate should be six hundred cubic feet. Failure to comply with these regulations should be considered a misdemeanor.—*Med. and Surg. Reporter*, Feb. 20, 1886.

Benson on a Case of Partial Embolism of the Inferior Division of the Central Artery of the Retina Associated with Repeated Attacks of

Chorea.—The patient, a house painter, aged twenty-one, had had rheumatic fever seven years ago. Three years ago had an attack of left hemichorea. Two years ago another attack of more general chorea, and last year a third attack of chorea.

On October 14, 1885, he suddenly became blind in the right eye; in a few minutes vision began to clear from below upwards, and in fifteen minutes the lower half had quite cleared to the horizontal line, passing through the fixation point. There the improvement abruptly ceased, and has not since proceeded. The ophthalmoscope showed œdema of the lower half of the retina, and "a cherry-red spot" at the macula. The vessels were all filled with blood, and pulsation could be produced with pressure, showing circulation had been re-established at that time (*i. e.* fifteen hours after the eye got blind). The vessels of the lower half of the fundus were not quite so plumply filled as those of the upper half. In a few days there were evidences of atrophy of the disc and shrinking of the retinal vessels in its lower half; and as the œdema of the retina diminished, the atrophic changes increased and the vessels shrank markedly. The diagnosis was that an embolus for a time partially blocked the central artery before its bifurcation, and subsequently got shifted into the inferior division and partially blocked it, for the vessels were all carrying blood in the right direction, showing that the obstruction was not complete. He had never had any similar attacks. His heart and kidneys were carefully examined and nothing abnormal discovered.—*Dub. Four. Med. Sci.*, Feb., 1886.

Deighton on Embolism of the Central Artery of the Retina.—On February 2, 1885, he was sent for to see Mrs. W—, aged 60, who said that as she was lying awake in bed in the morning she suddenly lost the sight of her right eye. She had never had any previous attacks of loss of sight, and the other eye was not affected; she did not feel giddy, faint, sick, or have any sensation of pain at the time of the attack. She was an anæmic-looking woman, and the apex of one lung presented well-marked evidence of phthisis. The pupil of the affected eye did not act directly to light, but contracted on illuminating the other eye; with moderate pressure there was no sensation of phosphenes. On February 3d, she could distinguish large

objects in a small peripheral portion of the temporal half of the field. Ophthalmoscopic examination showed the optic disc blanched, the arteries very much reduced in size but not filiform, the veins full and distinct. Round the optic disc and in the neighborhood of the macula lutea a perceptible haziness of the retina was visible, but there were no hemorrhages. The fundus of the other eye was quite healthy. This patient was seen again about six months later. The ophthalmoscopic appearances were those of atrophy; the arteries were very small but not obliterated. Vision was the same as before.—*Br. Med. Four.*, Jan. 2, 1886.

Lee on Chancre of Upper Eyelid.—A man had a chancre situated on left upper eyelid, accompanied by considerable swelling and induration of pre-auricular and sub-maxillary glands on the same side.

The patient was strong and healthy, married, aged about 35, a laborer in the Mersey Tunnel, who stated that six weeks before, he got some grit in his left eye, which a fellow-workman undertook to remove by licking with his tongue. About a month after this occurrence the eyelid commenced to swell; there had been no discharge from it, and shortly he noticed that a lump began to form on side of his cheek; he only used home remedies, and the eyelid not improving in about a fortnight, he sought advice at the infirmary.

The author was unable to say whether or not the friend who had licked the patient's eye was at that time affected with any syphilitic lesion of lips or tongue, as he had left the neighborhood and could not be traced, and consequently there was a missing link in the chain of cause and effect.—*Liverpool Med. and Surg. Four.*, Jan., 1886.

Hartridge on Tobacco Amblyopia.—The chief points relied on in the diagnosis were: (a) rapid failure of sight with no ophthalmoscopic or other change to account for the great loss of vision; (b) central color scotoma; (c) excessive smoking. Of the twenty cases, all improved considerably, and in thirteen complete recovery may be said to have resulted. In one instance the patient was a woman (the only one that has ever come under my notice suffering from tobacco amblyopia), another was a teetotaler, and four chewed as well as smoked; but in no instance have I met with a case of amblyopia in a person who used tobacco for chewing only.

As regards treatment, the essential point was the total discontinuance of smoking, instead of diminishing the quantity and quality of the tobacco, as suggested by some writers. In half the cases strychnine was administered, in the other half a placebo, with apparently equally good results. Galvanism was tried in three cases, but with no appreciable effect. After recovery, three or four pipes of mild tobacco daily were allowed, but a caution was given that excessive smoking would be likely to produce a return of the amblyopia. In my experience optic atrophy has never resulted.—*Br. Med. Four.*, Jan. 30, 1886.

Gunn on Amblyopia from Bisulphide of Carbon.—The patient used bisulphide of carbon in preparing oil from cocoa-nut fibre. He had worked at the same occupation for fourteen years, but about sixteen months ago he changed his situation, and four months later the symptoms of illness began; the ventilation of the workshop was defective, and no doubt was the cause of the development of symptoms. There was complete red-green blindness, which might have been congenital, but probably was not. Jaeger 19 was the smallest he could read. There had been no improvement even in four months. He also showed the result of an operation on an eye damaged by severe sympathetic disease.—*Lancet*, Feb. 6, 1886.

MISCELLANEOUS.

Nichols on a Stone of Sixteen Years' Growth in the Nostrils of a Healthy Woman.—In the year 1868, being called to see a little girl who was supposed to have thrust some hard substance up one of her nostrils, I found what I thought to be a small shoe button, far up the nostril. Manipulations, sneezing, and a sharp puff of breath into the mouth of the child having failed to dislodge it, I opened my pocket case of instruments, and thought to remove it either with the scoop or with the alligator-jaw forceps. But she was so frightened at sight of the instruments that I could get no chance to try them there. I therefore gave some directions, and left with the understanding that I was to be called again as soon as she should seem willing to have the instruments used.

From that time on the case to me was out of sight and out of mind, until some two years since, at which time I was called, in company with the family physician, to see a patient who had a "bony tumor" in her nose. Upon entering the house I recognized the patient as the upgrowth of the little girl that once had a button up her nose. She said she was the same girl, and did not think the button had ever moved from the place where it first lodged. Thereupon I assured the attendant that the "bony tumor," which was plain to be seen far back in the nostril, was nothing more than that same shoe button, with bony secretions surrounding it. The doctor then seized it with the alligator-jaw forceps, and after a while, by persistent and careful traction, succeeded in removing it. It was broad and flat, and more than twice the size of a Lima bean, but similar in shape. Upon breaking it open, the small black shoe button supposed to have been lodged in her nostril sixteen years before, was found imbedded in the centre.—*Med. Age*, Feb. 10, 1886.

Brouardel on the Elimination of Arsenic by the Milk.—Apropos of an attempt at poisoning, of which a nurse was the victim, and whose child had succumbed with choleraic symptoms, the author has been led to examine this question. From the body of the dead infant he extracted five milligrammes of arsenious acid. Among some nurses, who took every day for a week eight milligrammes of arsenic, chemical analysis showed that there was a milligramme of arsenic in 100 grammes of milk. Unfortunately, the results of experimentation upon animals were not constant, because of their very variable susceptibility to arsenic. From these facts he draws the conclusion that it is dangerous to administer arsenical preparations to nurses, and points out the activity with which arsenic is eliminated by the milk.—*L'Union Médicale*, 3d Jan., 1886.

Venesection for Hemorrhage.—A correspondent of a Madrid medical journal, writing from Zaragosa, says that in cases of hemorrhage, notably in hæmoptysis and in epistaxis, if astringent remedies fail to arrest the attack, the simplest and best proceeding is to open the saphena or basilic vein. So far from alarming the patient and his friends, he finds that it rather tends to reassure them, for there is an idea very prevalent in Spanish towns that

"a doctor who does not bleed is not a good one." Many patients, too, with epistaxis will exclaim that they would rather die than allow an instrument to be passed into the nostril, but they will readily consent to allow a vein to be opened, especially when they are assured that this proceeding will almost infallibly cause the flow of blood from the nose to cease. The writer says that this assurance may be given with the utmost confidence, as he has constantly employed venesection for this purpose with very great success.—*The Lancet*, Jan. 16, 1886.

Celles on Articular Rheumatism during Pregnancy.—Articular rheumatism during pregnancy has no peculiar symptoms. It is not severe, and terminates favorably. It does not often disturb gestation, and the author cites only two cases in which abortion took place. He has observed it in all stages of pregnancy, but generally in the fourth or fifth month. After delivery, rheumatism is very serious, often confined to one joint and tending to suppuration. It becomes another disease because of the puerperal septicæmia.—*Paris Médical*, 9th Jan., 1886.

Phosphopetine in Typhoid.—The credit of compounding this very valuable preparation belongs to C. A. Higgins, Flemington, N. J., who will send the formula, with full directions, to any physician sending his address.

PUBLISHERS' NOTES.

An improved Pepsin.—We are always pleased to inform our readers and the profession in general of any new pharmaceutical preparation, especially if it is an important one, such as the one we will now speak of, "Crust Pepsin." It is a well-known fact that the importance of pepsin as a means of aiding digestion and dissolving foods have lately increased to such a degree that its manufacture has become the object of an extensive branch of industry throughout the civilized world; and many firms have introduced Pepsin that has met with more or less success. But a leading firm in New York City is about to put upon the market, after many years of experimentation, under a new process, a pepsin that will be free from sugar of milk, salt, acid, and peptones; one part of which will be sufficient to dissolve above 1,200 parts

of coagulated egg albumen, which is without a doubt, considerably above, if not double the digestive power of any other "Pepsin." One of the most important features in this new pepsin is that it is not hygroscopic and will not decompose, no matter in what climate it is kept.

It will be known as "Kidder's Crust Pepsin" in the form of pure pepsin of bright brown scales, of pure powdered pepsin and of saccharated pepsin, U. S. P. 1880, in the proportion of one part of powdered crust pepsin to nineteen parts of sugar of milk. Dr. Endeman, a chemist of New York City, has examined the dissolving power of this new preparation, with dried blood albumen or beef fibre; his figures show it to possess a digestive power about double that of any pepsin in the market. Having had the pleasure of a personal interview with a very competent chemist of this city, with the view of obtaining his opinion of this new pepsin, he says: "I have experimented largely with the various pepsins on the market, and I find that 'Kidder's Crust Pepsin' to be the most active ferment I have ever tested, one grain easily dissolving over one thousand grains of coagulated egg albumen; it, moreover, shows a uniformity in strength that is foreign to other pepsins."

The profession will readily see that these statements will suffice to show this to be a superior pepsin and should congratulate this New York firm on being able to secure such a great preparation of pepsin, that is a decided improvement on all others; an improvement that has long been wanting.

Messrs. Griffith & Co., chemists and druggists, 146 Second Avenue, New York, deserve credit for the manner in which they protect the physician from "repeats" when they prescribe their Compound Mixture of Guaiac, Stillingia, etc. See their advertisement. Physicians who have a stubborn case of rheumatism on hand, will do well to make trial of this mixture. A number of competent practitioners are quoted as speaking highly of this preparation.

Viburnum Compound.—Attention is directed to Viburnum Compound ad., following special notes. Dr. Hayden claims that this preparation has been before the profession for twenty years. Send for Illustrated Handbook, containing reports of cases, etc. Address Dr. W. R. Hayden, Bedford Springs, Mass., and mention MEDICAL ANALECTIC.

Horsford's Acid Phosphate.—Dr. W. W. Gardner, Springfield, Mass., says: "It seems almost tautological to recommend Horsford's Acid Phosphates, a valuable stomach and local tonic. I have made use of it in my family and practice for years. I will, however, repeat what my practice confirms, that I value it when taken according to directions, as an excellent preventative of indigestion, and a pleasant acidulated drink when properly diluted with water, and sweetened."

Colden's Liquid Beef Tonic is described as an excellent article for the purposes for which it is offered. Patients are said to have taken it with eagerness, and great benefit in cases where domestic beef teas and other beef preparations had become repulsive.

I take much pleasure in bearing testimony to the remedial effects of Peacock's Fucus Marina, I am better pleased with its action than with any thing I have ever used as an antidote to malarial poisoning.

J. T. HERNDON, M.D., Keysburg, Ky.

For indigestion, nervous or sick headache, prescribe Seven Springs Alum Mass, a specific.

J. A. DICKEY, M.D., Bristol, Tenn.

Messrs. FARWELL & RHINES, Watertown, N. Y.:

DEAR SIRs.—I am exceedingly pleased with your Gluten Flour. I have used several barrels of it in my own family, and can heartily endorse all you have said of it. I consider it a great help in my practice, and those of my patients who have tried it are united in its praise. It is exceedingly rich in the phosphatic and nutritive elements of the wheat, and meets a great want. I hope it will be largely introduced.

Yours truly,

A. W. LOZIER, M.D., 103 W. 48th St.

Send to Chas. Truax, 81 Randolph St., Chicago, Ills., for their illustrated catalogue.

"Cod-Liver Oil with Hypophosphites."—As a nutrient means of checking and repairing bodily waste, and remedying disease of the throat, chest, and lungs, "Scott's Emulsion" has long held a high rank among preparations of cod-liver oil for the last fifteen years. The certificates of some of the most eminent physicians and analysts in Europe and America, in both of which countries it is widely esteemed by the profession and the public, attest both its efficacy and its chemical purity.—

Townsend's Quarterly Epitome.

THE MEDICAL ANALECTIC

A
MONTHLY EPITOME OF PROGRESS IN ALL DIVISIONS OF
MEDICO-CHIRURGICAL PRACTICE

EDITED BY
R. W. AMIDON, M.D.

VOL. III., No. 4.

April, 1886.

WHOLE No. 28.

LEADING ARTICLES.

An Inquiry Concerning the Contagiousness of Phthisis.—At a recent session of the Soc. Méd. des Hôpitaux there were 213 cases of contagion reported; 107 were between husband and wife, 73 were between parents and children, and 32 were between strangers.

Dr. Delacour, in 54 cases where the consort was phthisical, reported 4 cases of acquired phthisis.

Dr. Leudet, in 74 relicts, has seen 13 develop tubercule; but in 6 cases there was a phthisical hereditary tendency.

Dr. Alison has seen 44 cases of transmission; but only in 3 cases was it between husband and wife, while he had seen it occur 19 times between strangers.

M. Rendu reported the case of a woman of good parentage, herself perfectly healthy, bearing healthy children, and remaining in the best condition until she married for her second husband a consumptive. She contracted quick consumption, and died a year before her husband.

An exactly similar case was reported by Dr. Odin.

Dr. Blondeau narrated an instance in which a healthy married couple first lost a two-year-old child with tubercular meningitis. A year later the wife died with acute phthisis, and two years later the husband developed a tubercular laryngitis, followed by pulmonary symptoms.

M. Leudet had studied 28 families, in 15 of which the tuberculosis seemed hereditary, while in the other 13 cases it seemed due to contagion.

M. Cornil narrated the case of a young girl, who transmitted to her father and mother, previously healthy, a tuberculosis she had contracted.

Dr. Séjournet reported the history of a family comprising an aged father and

mother and five children from twenty-five to thirty-two years of age, all healthy and living at their ease in a large country house. An older son came home from Paris and succumbed in six months to pulmonary tuberculosis. A younger sister died a year after her brother. An older married sister died a little later. A third sister, who had shared the chamber of her older sister, was attacked by the disease, and died a year later. The youngest daughter, who had nursed her sister, followed her in about six months, and the husband of the elder sister succumbed, in his turn, to tuberculosis a few years later. The father died of apoplexy, and the mother is still living and in no wise tuberculous.

M. Blondeau communicated a case in which a healthy man shared a small room with a phthisical friend during the siege of Paris and died of phthisis six years later.

M. Bucquoy reported the case of a hospital interne whose mistress had phthisis and who died in his arms, he having taken the most devoted care of her through her illness. He was siezed with an hemoptysis and acute tuberculosis, of which he died in a few months.

Dr. Marignan had seen a healthy young woman, who had shared her room with a friend who died phthisical, develop phthisis and die in a few months, but not until a healthy female cousin of hers had contracted the disease, which proved fatal in six months.—*Gaz. des hôp.*, March 20, 1886 (Editorial).

Terrier on Ocular Grafting.—Dr. Terrier, charged by the Surgical Society of Paris with the task of investigating the various attempts made in ocular grafting, records five attempts.

The first was by M. Chibret (of Clermont-Ferrand); two were by himself; one by M. Rohmer (of Nancy); finally, one by H. W. Bradford, of Boston.

M. Chibret's case was a young woman of 17, who had the left eye excised for staphyloma.

The eye removed was two or three times the normal size. He irrigated the capsule of Tenon with sublimate sol. 1 to 2,000.

The left eye of a rabbit was excised, retaining a piece of conjunctiva near the inferior border of the cornea, and the bulb was transplanted by means of a fixation forceps. The bulb was then irrigated by sublimate sol. 1 in 2,000.

A suture was passed through the conjunctiva of the patient—one to the right, another to the left. The rabbit's eye was introduced into the capsule, giving to the different meridians their respective relations. The cornea was held in place by the index-finger, while the threads were tightened and tied above and below the cornea, so as to set it in the free folds of the conjunctiva.

Being assured of the right position of the pupil, the sublimate solution 1 in 2,000 was again used and the two eyes were immobilized by a compression bandage. On the 5th day the cornea presented ulceration, caused apparently by pressure of sutures. The ultimate result was a small stump in the enucleated socket formed by the sclerotic of the transplanted eye.

The second attempt in order of time was one by the author, June 15, '85. The patient was a man of 30. Enucleation was for traumatism.

The eye of a rabbit was removed, taking care to leave around the cornea a certain extent of conjunctiva, and avoiding complete denudation of the globe of its cellular tissue. The eye on removal was washed in boric-acid solution and placed immediately in the orbit of the patient, removing previously the sponge that checked the hemorrhage. Then with fine forceps the conjunctiva was returned very easily around the eye, so placed and maintained by the aid of forceps with pressure.

A suture of fine silk was put then all around the new globe, between the human and animal conjunctiva.

The transplanted eye suppurated without adhering to the orbit.

Rohmer's case was a woman of 42. Enucleation was performed for staphyloma, June 22, 1885. The transplanted eye was from a dog.

He took care to spare a collarette of conjunctiva around the cornea about 3 or 4

mm. broad. He left the cellular tissue about the sclerotic. The globe was dipped into a corrosive sublimate solution and placed in the orbit. The pericorneal collarette of conjunctiva was fastened to the orbital conjunctiva of the patient by four sutures made of fine threads of silk dipped in sublimate solution.

The 28th of June the eye emptied its contents and left only the ocular shell of the transplanted eye, which had to be removed for sympathetic trouble.

Bradford's case was a sailor of thirty-five.

In every case the recti muscles were lifted on a blunt hook and sutures passed through them before they were cut. Besides the surgeon drew the globe forwards and placed a thread through the centre of the optic nerve. The nerve was then cut at the edge of the sclera and the ball removed. Hemorrhage was arrested by applications of ice.

The conjunctiva of the rabbit's eye was cut round about 5 mm. from the cornea, and the muscles were cut close to the globe; the optic nerve was cut about 8 mm. from its entry into the sclera.

The orbital cavity of the patient was well dried, and bathed with a little of the white of an egg; the eye of the rabbit was also dipped into this albumen before being set.

The end of the thread previously inserted into the optic nerve of the patient was passed through the optic nerve of the rabbit's eye, and the points of the two nerves were carefully brought together by means of a peculiar running knot. One of the ends of the suture was cut short, the other end was fastened by a small diachylon plaster to the side of the nose, leaving the eye by the larger angle or canthus, and avoiding all traction liable to untie the running knot. The four recti muscles were sutured to the subconjunctival tissue, then four points of suture brought together the conjunctiva of the rabbit to that of the patient.

The lids were closed, iodoform dressing was used, with compression by absorbent cotton and flannel bandage.

The first dressing was not removed until the seventh day; the eyelashes were then stuck together by mucus. Light opacity of the cornea, apparently superficial; chemosis hid the cornea, save on the outside, where the sclerotic was uncovered; the point of suture of the external rectus had

not held to the subconjunctival cellular tissue, and the muscle by its traction had drawn away the conjunctiva. He removed the suture of the nerve and the superior and internal recti. The inferior rectus remained sutured. Atropin was instilled, the lids were closed, and the dressing was reapplied.

The second dressing stayed on until the twelfth day. The patient complained of slight pain. The inferior suture was detached. The cornea, still cloudy, appeared to be clearing. The conjunctiva was adherent to globe all around the cornea. The sclerotic, denuded before, was partially recovered. The recti muscles were attached to the globe. Atropin and iodoform dressing continued.

On the eighteenth day when the report was made, the tension and conformation were normal; cornea cleared so far as to perceive the iris. Chemosis had disappeared, although the conjunctiva was still hyperæmic. The sclerotic had been all recovered in that part originally denuded. Ocular movements were good.

About three months after the operation the volume, form, and tension of the globe were normal. On the outer portion of the cornea was a cicatrix, due to an ulcer occupying about a sixth of its surface. The conjunctiva was normal; the iris a little hazy, possibly dilated, and not contracting under the influence of light. The vitreous showed some opacities; the nerve was scarcely discernible. The ocular movements were well executed.

The fifth operation (by the author) was a failure. On the nineteenth day the eye emptied itself by sloughing of the cornea.

The author concludes that the *method* of operating is very essential.

The suture across the conjunctiva by M. Chibert was bad and insufficient. It increased the inclination of the lowly vitalized cornea towards suppuration and death.

M. Chibert was also wrong to remove the cellular tissue coating the globe, as this diminished just so far the chances of cellulo-vascular adhesion.

Another point of improvement was by M. Terrier in leaving the collarette of conjunctiva around the cornea, but direct suture of this to the ocular conjunctiva produced the entropion and consequent suppuration of the cornea, and is therefore bad.

Dr. Bradford's suture of the optic nerve is much better than that of the recti muscles to the subconjunctival tissue, and, lastly, the conjunctiva. This multiplies the points of adhesion, and hence of success.

Yet this is a difficult procedure and, as in the case of the external rectus of Dr. Bradford's case, may tear off the covering of the sclerotic.

Using egg albumen to bathe the parts and dip the transplanted eye in, he does not think of special advantage, and would prefer artificially and freshly prepared serum.

Finally, the prolonged occlusion of the globe and the iodoform dressing play a large part in the success of the attempt. Dr. Terrier also suggests suturing the lids together by one or two silver threads to make sure of avoiding movement and entropion.

It is yet too soon to say what the value of the operation is. That what was and still is supposed impossible has been accomplished is evident.—*Rev. gen. d'ophthal.*, Paris, May, 1885, and Jan., 1886.

Neff (Joseph S.) on Pyridine in the Treatment of Asthma.—Pyridine has been known in chemistry for some time, Etarde and Cahours having discovered a pyridic nucleus in nicotine in 1880. Its use in medicine, however, is novel, as the first mention of it was made in a paper read by Germain Sée before the Academy of Sciences last June. He had remarked so frequently the benefit derived from empiric and secret formulæ, to which he was so often forced to resort, that he endeavored to ascertain the true physiological agent to which these results could be traced. Together with Bochefontaine, he instituted a chemical analysis, showing that their action was due to a uniform base developed by the combustion of certain plants and alkaloids, as, for example, chinonine, pilocarpine, atropine, nicotine, and morphine. It has also been found by Wohl and Eulenberg (*Bulletin gén. de thérapeutique médicale, chirurgicale, et obstétricale*, June 30, 1885) in the condensed products of tobacco-smoke, and during the destructive distillation of dry organic matter in the products of bony tissue and coal tar.

The name pyridine is derived from the Greek word meaning fire, indicative of its source of preparation; when pure, it is a clear, colorless liquid, with a specific gravity

of 96, boiling at 274° F., inflammable, having a strong, penetrating odor, evaporating in the air at ordinary temperatures, and miscible with water in all proportions. Its chemical formula is C_8H_8N , being that of a base belonging to a series of bases of which picoline (C_8H_7N) and lutidine (C_7H_8N) are the most important, being analogous to the aniline bases, and it forms salts with the mineral acids, which are very soluble but easily disintegrated; the latter constitutes one of its difficulties in administration. Sée's¹ experiments show that the sensibility of the pneumogastric nerve and the excitability of the medulla oblongata are decidedly diminished in the dog. "The blood-pressure, which is 14° ctm. of mercury in the normal state, rises to 32° ctm. upon central excitation of the pneumogastric, severed in the neck. After the injection of one gramme of pyridic nitrate, practised twenty times, the arterial tension gradually fell, and, if centripetal excitation was repeated, the pressure remained unchanged—that is, the gray substance of the spinal cord had lost its reflex power."

Physiological experience at first would indicate a similarity to the action of nicotine—contraction of the pupils, dyspnoea, convulsions, and death; this I have not found as yet to be the case. Owing to my inability to procure a proper combination for internal use, I have been compelled, in administering it to the lower animals, to use it in the form of vapor, and the observations are not sufficient to warrant positive conclusions; but I would express the opinion that in the healthy animal the respirations are at first quickened, then slowed, the pupils are but little affected, there are no convulsions or dyspnoea at any time, but drowsiness and stupor. The respirations become slower and slower until they cease. After death the heart continues to beat for a considerable period, the cavities containing black fluid blood.

The method of administration is by inhalation, as it cannot be given by the mouth or subcutaneously, owing to its excessive irritative action in the first place, and to the instability of its salts in the second. The direct application of the drug to the nose or mouth provokes nervous troubles, as well as irritates the mucous membrane.

I have suggested the use of capsules, but its volatility prevents the closure of those

made of glass, and its permanence in those made of gelatin. I think that proper combinations may be made to be inhaled directly from a bottle or towel. I have used from two to four grammes at a sitting, poured upon a saucer, placed in one end of a small room with doors and windows closed, or, what is better still, a large closet, and allowed the patient, sitting a little distance from it, to inhale the pyridic vapors mixed with the air. The absorption is immediate, the drug being detected in the urine in a few moments.

Upon the healthy adult, as shown in myself, assistants, and nurses, there has been almost universally a flushing of the face, with quickening of the pulse and respiration, the latter lasting but a few moments, the former from fifteen minutes to ten hours, depending largely upon the length of time of inhalation. In several instances temporal headache of a slight character has persisted for several hours; at times a peculiar full sensation approaching giddiness is experienced.

The fact that in the healthy the pulse and respiration are quickened for a few minutes does not hold good in asthmatic patients, for, almost without exception, the heart's action, which previously may have been accelerated, slowly falls to the normal, without change in character or rhythm; and less rapidly the respirations, which become slower, easier, and more full, the intense longing for air disappearing, with diminution of the oppression.

In most cases there is a desire to sleep, which in some becomes irresistible; this resembles, however, normal sleep, from which they are easily aroused, and without insensibility or loss of intelligence, thus distinguishing it from the sleep produced by narcotics and anæsthetics, although there is a slight loss of muscular reflex action.

I have used this preparation many times in a series of twelve cases of asthma.

The results were as follows:

Nervous pulmonary asthma, three cases. No return of attacks in any.

Cardiac asthma, three cases. All were relieved of attacks. One remained under observation three months, and one for two weeks only.

Bronchial asthma, three cases. In one there was no return during ten weeks' stay in the hospital. The two others were relieved of their attacks and insisted upon

¹ *Bulletin générale de thérapeutique*, June, 1885.

their discharge, being under treatment less than three weeks.

Asthma in advanced phthisis, two cases. In one there was but slight relief during the paroxysm; in the other there was absolutely no benefit.

Asthma as a complication of gout, one case. No return in a month. Albuminuria from interstitial nephritis was present.

Of the fourteen cases reported by Sée, four were in females, ten in males, from thirty to sixty-eight years of age. Nine were what he terms "pure asthma," all of which were more or less relieved, and five cases of cardiac asthma.

In one case of twelve years' duration pyridine caused nausea and vertigo after eight days of treatment, which necessitated its discontinuance, although great relief was obtained. Nausea I have not seen; vertigo but once.

In one or two cases where the expectoration had been purulent it lost that character after the inhalation.

All unpleasant symptoms seem to be confined to cases with long-standing emphysema, or valvular or degenerative heart disease, with small, irregular pulse. In young, robust people with "simple" pulmonary asthma there seems to be drowsiness alone.

Since these observations¹ were made I have noted, in a more recent report by Lublinski,² one case of marked tremor of the limbs with nausea, and another with vomiting, dizziness, and severe headache. In all of these, however, the length of time of each inhalation was prolonged from one to one and a half hour.

The beneficial results obtained from this remedy seem to be from its action on the sympathetic and the medulla.

Any depressing effects on the heart would seem due rather to the interference with the pulmonary functions, death being caused, in the lower animals at least, by paralysis of the respiratory centres.

Pyridine is not to be classed as a curative agent. Most likely its greatest value will be seen in cases of simple or nervous pulmonary asthma, when the iodine preparations can not be borne, or nitro-glycerin and sodium nitrite are contra-indicated. Al-

though in the bronchial or catarrhal forms of the disease the relief of the paroxysms has been marked in ninety per cent. of the cases treated, of the remaining number nearly all had emphysema of long standing.

In asthma occurring in advanced phthisis the drug should be given with care on account of the small amount of lung tissue left unaffected, especially where there is a great degree of consolidation with fibroid induration, when, perchance, the spasm may be relieved, but few air vesicles remain in condition to respond. Here at least morphine will hardly be superseded.

I have used pyridine in several forms of dyspnoea occurring in different diseases without much benefit.

In phthisis the recurring dyspnoea and orthopnoea are relieved during the period of inhalation only, returning in a few moments, and at times with increased violence.

With so little experience, this drug must be administered with a certain degree of caution until its action is thoroughly understood, severe or persistent headache, nausea, vomiting, and vertigo acting as danger signals, warning us to proceed with care.—*N. Y. Med. Jour.*, March 13, 1886.

Gerster (A. G.) on Spontaneous Phlebacteriektasia of the Foot.—During the past year two cases of this rare and interesting morbid condition came under my observation in the German Hospital. Both patients were boys—one fourteen, the other eighteen years old—and in both cases the beginnings of the disturbance belonged to infancy. The older one declined operative treatment, and withdrew from observation. The history of the patient presented is as follows:

Robert Klaile, æt. fourteen, a well-developed boy, was admitted to the German Hospital, July 2, 1885, on account of a number of rebellious ulcers situated on the dorsum of the left foot. The condition was said to have existed since childhood; no injury was remembered. Physical examination of the internal organs revealed their normal state, with the exception of the heart, which was found to be enlarged, and evinced a marked increase of the energy of its pulsations. The femoral arteries of both sides were found to beat with unusual strength, and, when somewhat compressed, gave rise to a strong whirr, both to be felt and heard by the stethoscope. On inspection, an increased size of

¹ Report of a clinical lecture delivered November 11th at the Philadelphia Hospital. *Medical and Surgical Reporter*, December 5, 1885.

² *Deutsche Medicinal-Zeitung*, Berlin, November 5, 1885.

the left foot became manifest, the hypertrophy pertaining to the soft parts as well as to the bones. The length of the right foot was 24 centimetres, that of the left foot 25 centimetres. Their circumference was 23 and 24 centimetres. The dorsum, as well as the sole of the left foot, was occupied by a doughy, soft, nodular swelling of irregular and not well-defined outlines. The skin of the plantar surface was normal; but on the dorsum, along the course of the saphenous nerve, a series of roundish, irregular, rather hard, dark blue, partly confluent nodes could be seen. They were partly covered with a thick layer of rough epidermic scales, partly by a closely adherent dry scab. Attempts at removing this were followed by rather copious capillary hemorrhage. Their general aspect was that of teleangiectatic nodes. A number of enlarged veins surrounded these nodes, and could be plainly seen through the skin. If pressure was exerted on the swellings, they could be made to disappear, or at least diminish in size, and also a deep-seated pulsation of the whole mass became at once evident. Compression of the femoral artery promptly suppressed the pulsation, and while the compression of the main trunk lasted the swelling did not resume its former size. On the other hand, if the artery was compressed while the tumors were turgid, pulsation ceased, but there was no appreciable decrease of the size of the swelling to be observed. The stethoscope gave evidence of a strong arterial bruit all over the swellings. There was a marked difference in the temperature in favor of the left foot.

It seemed clear that we had to deal with a mixed angioma, containing the elements of both a cirroid aneurism and of teleangiectasia with phlebektasia. As there was no history of a gross lesion of the blood-vessels, a chronic inflammatory alteration of the entire vascular apparatus of the foot had to be assumed, which by this time had also reacted upon the femoral arteries and the heart, inasmuch as they too were found to be hypertrophied.

An ablation of the diseased part was proposed, but declined; wherefore having explained the not inconsiderable danger of a deligation of the main artery, and having vainly tried elastic compression for a considerable time, the patient was anæsthetized on July 7th, and the superficial femoral artery was tied in Scarpa's triangle. Pul-

sation ceased for a time, but became faintly but clearly noticeable about ten minutes after closure of the vessel; whereupon the external iliac artery was exposed and tied. Pulsation did not return after this. The wounds were closed, not drained, and the limb was enveloped in a thick swathing of cotton batting.

The course of the healing of the wounds was undisturbed and feverless, but the circulation in the limb became so depressed that serious apprehensions were entertained in regard to its preservation. The toes, especially the first and second, were cold and livid, their sensibility was destroyed, and in the course of the first week necrosis of the tegument of the terminal phalanges became manifest. At the same time the skin on the outer and posterior aspect of the limb, exactly over the course of the peroneal muscles, sloughed; and on being removed, necrosis of the entire belly of the peroneus longus was ascertained. A fortnight after the operation, the muscle was removed. It had the aspect of a pale, waxy, translucent substance. There was hardly any suppuration, and it was deemed advisable not to leave the sequestration of such a mass of tissue to the rather uncertain and risky efforts of nature. The toes were also removed. The patient was discharged cured in October, and no pulsation or increase of the tumors were noted at the time. The size of the swellings was somewhat smaller than before the deligation, but there was no hardening or marked shrinking such as would follow obliteration; on the contrary, the dough-like consistency had remained unaltered.

Patient was readmitted to the hospital in January, 1866. Pulsation had returned and was just as evident as before the operation. The teleangiectatic spots were all supplanted by ill-conditioned ulcers. The metatarso-phalangeal joint of the great toe was open and suppurating, and the boy complained of much pain and discomfort due to the ulcers.

Pirogoff's amputation was done Jan. 29, 1866, with the aid of Esmarch's band: the sections of an unusual number of large vessels, twenty-seven, were taken up and tied before; eleven more ligatures were applied after the removal of the constriction. The segment of the calcaneum was nailed to the tibia, and the wound closed by an interrupted catgut suture. Drainage was effected through a counter-opening made

alongside of the tendo Achillis. The first dressing was removed twenty-one days after the operation, and the wound was found firmly united, except along a small portion of the suture, where the rather fine catgut had been absorbed too soon. This narrow strip of granulation, together with the track of the nail, was found cicatrized over five days later, when the second dressing was changed.

The patient has a good stump, and walks on it without support.

A very excellent anatomical study of a case of considerable magnitude, by W. Krause, will be found in the second volume of Langenbeck's *Archiv.*, published in 1862. Nicoladoni has also reported three cases: two in vol. xviii., pp. 252 and 711; the third one in vol. xx., p. 146, of the same periodical. All, with the exception of one reported by Nicoladoni, were affections of the upper extremity, which is said to be the favorite site of the disorder. Both cases seen by me involved the foot; one the left, the other the right. I may add that the other case presented, especially as regards the local appearance and situation of the malady, an almost identical state of affairs as the case before you, only of less development.

As regards the treatment, the case presented bears out the experience of others, inasmuch as it demonstrates the futility, in the more extensive cases, of less radical measures than ablation.—*Med. News*, Mar. 20, 1886.

Townsend (Chas. W). An analysis of 412 Cases of Lobar Pneumonia, Occurring at the Massachusetts General Hospital between January 1, 1870, and December 31, 1885.—The following analysis has been made from the records of the hospital for the last fifteen years; excluding only those cases dying within twelve hours of entrance. Fractions of the percentage figures have generally been omitted, every thing above one half counting for an additional unit, every thing below one half being neglected.

Hospital statistics on disease are objected to¹ as not giving on some points a true picture of the disease, such as would be found in statistics from private practice, which include all classes of society. Thus hospital mortality is increased by the fact

that severe cases are more likely to be sent there, and cases whose destitution or intemperate habits have left them without other refuge than the hospital, while the more thrifty are cared for at their homes. But on the other hand many rapidly fatal cases are debarred from the hospital from their very rapidity. That the age of young adults is the most common age for this disease in the hospital may be partly explained by the fact that at this age men in the lower classes are frequently without homes and depend on their daily labor, and are hence sent to the hospital in severe illness. Younger men and children are still taken care of by their parents, while older men may have made homes for themselves unless they are thriftless, which generally means intemperate, and this latter fact may partly account for the great mortality in the older men. Bearing in mind these limitations, the following statistics are given for what they are worth.

Of the 412 cases, 311, or 75½ per cent. recovered, and 101, or 24½ per cent. died. The mortality found by the British Collective Investigative Committee² or 1,066 collected from private practice in the British Isles is a little over 18 per cent.

The age of greatest frequency is in the young adult, from which point the frequency steadily diminishes, while the rate of mortality increases as age advances.

As to sex, 217 males recovered and 71 died, mortality 25— per cent., and 88 females recovered and 28 died, mortality 24+ per cent. The much larger number of males (more than twice as many) may be partly due to the fact that they are more likely to be taken to a hospital than females, but the British statistics³ from outside practices show a nearly equal preponderance of male, namely, 704 males and 356 females. The mortality, which is usually stated to be higher in females, is here practically the same in the two sexes, in the British statistics the male mortality being 14.2; the female, 09.9.

The previous condition of patients as to health and alcoholic habits were unfortunately often passed over in silence in the records, but the following table includes those cases where these points are mentioned.

Of the "delicate" who recovered, 1 had

¹ Juergensen: Croup. Pneumonia, in: Ziemssen's *Cyclop.*, American trans., vol. v.

² *Collec. Invest. Rec.*, vol. ii.

³ *Loc. cit.*, page 30.

heart disease, 4 phthisis, and 1 Bright's disease; of those who died, 3 had heart disease, 1 phthisis, 3 Bright's disease, 4 asthma, 1 marked lateral curvature, 1 Pott's disease, and 1 was an idiot.

Of 205 cases, 138 were said to follow exposure, and 67 occurred without known exposure; in the other cases no mention is made of this point, and it seems probable that a majority of these were without exposure, because patients are generally extremely anxious to state the etiology in a disease supposed by them to be due to catching cold.

The prevalence in different months is shown as follows:

Month.	Recov- ered.	Died.	Total.	Death per ct.
January . . .	38	9	47	19
February . . .	27	11	38	29
March . . .	34	19	53	36
April . . .	58	15	73	21
May . . .	42	5	47	11
June . . .	7	9	16	56
July . . .	12	3	15	20
August . . .	6	2	8	25
September . . .	14	0	14	0
October . . .	17	6	23	26
November . . .	31	9	40	23
December . . .	27	10	37	27

In the following table portions of the lung are arranged in the order of the frequency with which they are affected by the disease:

Seat.	Recov- ered.	Died.	Total.	Death per ct.
Lower right lobe .	112	13	125	10
Lower left lobe .	68	7	75	9
Both lungs . . .	38	27	65	42
Whole right lung .	34	22	56	39
Upper right lobe .	34	10	44	23
Whole left lung .	12	11	23	48
Upper left lobe .	10	7	17	41

This agrees almost exactly, as far as the order of the frequency is concerned, with the English analysis, the only difference being that portions of both lungs, as shown by that analysis, are more frequently affected than the lower left lobe. The relative fatality of the different portions of the lung affected is of much less value, owing to the small number of cases. This is shown by comparison with the English list, arranging the tables in order of fatality.

Both analyses agree in making affections

of both lungs, the whole of either, or the left apex most fatal, while the right apex and the two bases are much less fatal.

Mass. General Hospital.	Collective Investigation.
Whole left lung, 48 per ct.	Both lungs, 30 per ct.
Both lungs, 42 "	Whole right lung, 28 "
Upper left lobe, 41 "	Whole left lung, 27+ "
Whole right lung, 39 "	Lower left lobe, 17- "
Upper right lobe, 23 "	Upper right lobe, 19+ "
Lower right lobe, 10 "	Lower right lobe, 18- "
Lower left lobe, 9 "	Upper left lobe, 19- "

An examination of the records as regards symptoms shows that of 325 cases in which mention was made, 207 had a marked chill or rigor, 61 chilly sensations only, and 57 were stated to have had neither. Of 374 cases, in 366 thoracic pain was present at some time in the disease; in 8 it was absent. Cough was mentioned in 399 records, stated to be absent in 3, and present in 396; in 106 of the latter it was noted as slight. Expectoration was absent in 21 of 383 cases, and present in 362; in 121 of the latter it was said to be slight. Of 341 cases in which the character of the expectoration was noted, in 278 it was bloody or rusty, and in 63 blood was absent. In 343 cases there was a record of the temperature, in 333 of the pulse, and in 306 of the respiration, and an analysis of these gives the following results:

	Recov- ered.	Died.	Total.	Death per ct.
Temp. {	Below 102°	56	12	68
	102°-104°	133	37	170
	Above 104°	68	37	105
Pulse {	Below 100	55	2	56
	100-120	126	15	141
	120-140	61	28	89
	Above 140	6	40	46
Resp. {	Below 40	141	13	154
	40-60	79	56	135
	Above 60	7	11	18

For value in prognosis the table shows the small mortality when the pulse does not exceed 120 beats in a minute, the mortality slightly exceeding the average with a pulse between 120 and 140, and the enormous mortality with a pulse above 140. With a respiration below 40 in a minute the mortality was small; above that, large.

The termination of the disease was in 128 cases by crisis; in 84 by lysis. The 8th day was the one during which crisis most frequently occurred, this being the fact in 24 cases. In 22 the crisis came on the 9th day, in 16 on the 7th day, 12 on the 10th

day, 11 on the 12th day, 9 on the 6th day, 8 on the 11th day, 6 on the 5th day, 4 on the 13th day, and 1 on the 14th day; in 5 crisis took place in the 3d week, and in 5 during the 4th week.

The favorite time for lysis was in the 3d week, 13 taking place then; 7 reached normal by lysis in the 4th week and also on the 11th day, 6 on the 9th and 13th day, 6 on the 12th day, 4 on the 8th day and also in the 6th week, 3 on the 10th day and also in the 5th week, 2 on the 7th day and in the 7th week, and 1 each on the 14th day and 9th week.

In 74 cases in which the day of death was found, in 11 it occurred on the 8th day; in 9 on the 9th day; 7 on the 11th day; 6 on the 10th and also on the 14th day; 5 on the 6th day; 4 on the 7th day; 3 each on the 12th, 13th, 15th, 16th, and 17th days; 2 on the 5th and 25th days; and 1 on the 18th, 19th, 20th, 24th, 30th, 35th, and 6th days.

A thorough examination of the treatment was not attempted. Stimulants, generally in the form of whiskey or brandy, were given in nearly 200 cases, including nearly all the fatal ones. A nourishing liquid diet given more systematically in later years. Bleeding in not more than 4 or 5 cases; squills and tartrate of antimony in a very few cases; ipecac in small doses in a moderate number. In a word, the treatment, more especially of late years, was sustaining and expectant.

Complications: 23 cases were complicated with a well-marked pleural effusion; of these 3 died. 8 had also typhoid fever, of whom 3 died. 12 were complicated with delirium tremens, and 3 died. 2 had pericarditis, and 1 died; 1 empyema, and died; 1 peritonitis, and 1 intermittent fever, both recovering. The chronic diseases complicating the cases have already been mentioned.

There are records of 29 autopsies, and the following table shows the condition of the spleen, liver, and kidneys as regards granular degeneration:

	Gran. degen.	Normal.	No mention, or doubtful.
Spleen . . .	17	10	2
Liver . . .	9	11	9
Kidneys . .	11	10	8

—*Boston Med. and Surg. Jour.*, March 25, 1886.

THERAPEUTICS.

Boymond (M.) on Lanoline.—Under the name of *asyum*, this substance, recently brought into notice by Liebreich, figured in the Pharmacopœia of Florence in 1590 and in that of Cologne in 1627.

It is derived from the oily principle of sheep's wool.

It is a cholesterine-like fatty body, viscous, glutinous, of a yellow color, a very faint odor, and neural reaction. It mixes easily with fats, is soluble in ether, chloroform, benzene, and bisulphide of carbon, but not in hot or cold alcohol. With water containing a trace of sodium carbonate it forms a permanent milk-like emulsion. It absorbs easily its weight of water and twice its weight of glycerine. A mixture of equal parts of lanoline and mercury can be effected in ten minutes. It absorbs its own weight of concentrated saline solutions. For these and other reasons it is easy to see that it will prove a useful vehicle and ingredient of ointments. — *Bull. Gen. de therap.*, Feb. 13, 1886.

Prince (David) on Erysipelas and other Septic and Infectious Diseases Incident to Injuries and Surgical Operations Prevented by a Method of Atmospheric Purification.—The problem attempted to be solved in this paper is to secure in an apartment, for any convenient length of time, an atmosphere more pure than the out-door air, so that a room, or any number of them, may continue, as long as the machinery is in operation, to contain an atmosphere as pure as that of a mountain top.

It is exceedingly probable that if the cavity of the peritoneum, or any other closed cavity, can be opened in an atmosphere free from floating material and closed again after a short period, the conditions will be the same as though the work of removing a tumor or other operation had been done subcutaneously so as to exclude the contact of air.

The room to be described is the result of my reflection upon the subject; and experience has suggested so many modifications of the apparatus, as to make a new cut necessary, in order to give a correct idea of the present arrangement, which now seems to realize every necessity for cool or cold weather. For hot weather

the current of air cannot be secured by heat produced in the operating-room above or in the room below, but must be obtained by a draft connected with a chimney operating as a *vis a fronte* (which is practicable in any hospital having a chimney in use in summer), or by a fan, operating as a *vis a tergo*, blowing air into the basement, which is to travel upward through the operating-room.

Taking a hint from the observations recently made in Paris upon the effect of rainy weather upon the number of microbes floating in the atmosphere, it occurs to ask whether or not it is practicable to subject the air entering an operating-room to the influence of artificial showers in order to precipitate to the ground the whole or the greater part of these enemies of surgery.

The air, before entering the operating-room, is purified in the basement of the same, first by a fumigation with sulphur, and then by three filtrations, one by steam, two by water.

Into the room where the sulphur is burned a strong jet of steam is thrown. The air then passes under a partition through innumerable fine jets of water, and from there, being heated by a stove it passes up around and between a series of shelves of muslin through which water is constantly dripping. The floor, walls, and ceiling of the operating-room are made non-absorbing. There are no closets or openings into any other rooms.

He uses ordinary disinfectant solutions and sometimes the spray.

He has tested the aseptic state of the air by exposing in the room organic solids and liquids prone to decompose, and in which micro-organisms thrive, and has found that the ordinary putrefactive process is much delayed or absent, while the spores of mold are the most difficult to eradicate, but they are also the most innocent of all in a surgical point of view.

Several operations involving the opening of joints have been made in this room, without any septic or erysipelatous sequel, and the peritoneal cavity has, up to the time of writing, January 1st, been opened six times.—*Am. Pract. and News*, April 3, 1886.

Ménière on Disinfection of the Eustachian Catheter.—Apropos of the recent syphilitic infection by means of an Eustachian catheter Dr. Ménière writes to

the editors of the *Gaz. des. hôp.* his mode of disinfection of that instrument. In the first place he uses *only* instruments of silver which he keeps constantly in a vessel filled with alcohol. When he wishes to use one he withdraws it from the alcohol, introduces it into the flame of an alcohol lamp, and in this way subjects it to the action of fire within and without. After dipping it in cold water he introduces a stylet of iron or brass which removes any burnt or dried material which may remain there.

If bougies of rubber are used they should be kept in alcohol and dipped in pure tincture of iodine. Every syphilitic patient should be treated only with instruments of his own.—*Gaz. des. hôp.*, March 20, 1886.

Bedoin on a New Antiseptic Dressing.—The author recommends a pliable blotting or tissue paper in the first place sterilized by prolonged exposure to a high temperature, next immersed in some antiseptic solution and then slowly dried. This dressing is applied directly to the wound generally in eight thicknesses, otherwise the procedure is very much like that of Lister.—*Bull. gén. de thérap.*, Feb. 28, 1886.

Nollet (Ernest) on the Alimentation of Albuminurics.—*Thèse de Paris*, 1885. He concludes:

1st. That a milk diet, up to the present time, has succeeded best in albuminuria.

2d. That this treatment is not suitable to all cases, and cannot be long continued without inconvenience.

3d. That albuminurics should avoid full meals, and eat often a little at a time.

4th. It is only on trial that one can tell what animal diet can be eaten with impunity.

5th. Fish seems to favor the passage of albumen into the urine.—*Gaz. méd. de Paris*, March 6, 1886.

Du Rocher (Boisseau) on a Case of Dysentery Cured by Ergot.—A strong man of forty-four was seized with a colliquative diarrhoea on Oct. 9th. Attempts to arrest the disease with bismuth and laudanum failed. In the evening he had four attacks of syncope, one of which lasted twenty minutes. He was pale, pinched, and covered with a cold, clammy sweat. Alcohol was given at once. The stools were numerous, and accompanied by extremely severe abdominal pains, and tenesmus. They were whitish, and contained mucus and blood. For three days the treatment consisted of alcohol and

calomel, with little if any amelioration of the symptoms, the pulse ranging from 110 to 120.

October 13th the patient was put upon ten-grain doses of ergot. On Oct. 15th recovery was assured.—*Le Prog. méd.*, March 6, 1886.

Ether and Opium in Small-Pox.—

During a recent meeting of the Medical Society of the Paris Hospitals, MM. Dreyfus-Brissac and Balzer mentioned that they had tried M. du Castel's ether-and-opium method of treating small-pox for a considerable time, and had convinced themselves of its efficacy. It consists in subcutaneous injections of ether, a daily dose of from fifteen to twenty centigrammes of opium being administered by the mouth. In severe and confluent cases the papules become abortive, suppuration is diminished, and the general improvement is rapid. M. Balzer prefers administering the ether as well as the opium by the mouth, but M. du Castel considers this less efficacious than the hypodermic method.—*Lancet*, March 13, 1886.

Lees (D. B.) on the Neurotic Treatment of Catarrh.—My plan of treatment for the arrest of catarrh is as follows: I keep a strong solution of bromide (1 in 3) and a bottle of tincture of belladonna (B. P.). When I am conscious of having taken cold, I take two to three drachms of the bromide solution in a small glass of water—that is to say, forty to sixty grains of bromide. I repeat this dose in six hours, and, if necessary, take a third dose at a similar interval. Meanwhile, as soon as a flux commences, I take twenty drops (equivalent to fifteen minims) of the tincture of belladonna (B. P.) in a little water every hour or two until the throat feels somewhat dry. The painting of the nasal mucous membrane with cocaine solution gives great relief, and powerfully contributes to the cure if the catarrh be severe. Since I hit upon this plan I have never failed rapidly to arrest my own catarrhs, nor have I failed in any instance in which I have myself been able to superintend the administration of the remedies.—*Lancet*, Feb. 27, 1886.

The Galvano-Cautery in Diphtheria.—The only definite information concerning this measure is by Tedeschi, of Trieste, and Bloebaum, of Coblenz. The latter had used this agent in similar pathological conditions in ophthalmological practice. He assured himself that the galvano-

cautery (the wire loop) does not produce inflammation, but is an antiseptic, leaving the necrosed parts harmless and powerfully stimulating the underlying tissues to healthy growth. He regards it as the only true and certain parasiticide.

Tedeschi gives a well-written account of the actual application of this method of cure. The pain inflicted is slight. A cocaine spray has not been deemed necessary. When the pseudo-membrane is touched with the heated wire loop it curls up, finally sloughs off, and the ulcerated surface left does not reproduce the patch. If the whole exudate is removed in this way, the process does not extend beyond the limits of its former margins. After the above procedure, the fever, oedema, and glandular swelling all disappear. The period of the coming away of the eschar varies from the eighth to the eighteenth day. The immediate after-treatment is limited to swallowing chipped ice. Later, benefit may be derived from the customary steam and lime-water sprays and gargles.

The great advantage claimed for this method over the use of chemicals is in its perfect localization. Any solutions to be of great power must be so concentrated as to irritate surrounding tissues. Toleration by the latter necessitates a solution so weak as to be practically useless. A specific ulcer is by the cautery converted into a simple one—so say the advocates of the new method.—*N. Y. Med. Record*, March 13, 1886 (Editorial).

Davies (N. E.) on Belladonna-Inhalation in Acute Bronchitis.—In acute bronchitis, I believe the dyspnoea is caused more by the contraction of the muscular tissue of the air-cells due to the irritation caused by the bronchial inflammation, than by the viscid mucus secreted; and, acting on this belief in a case I had occasion to treat a few days ago, where the dyspnoea seemed likely to terminate life, I gave a grain of extract of belladonna in half an ounce of water, by means of a Dr. Seigel's inhaler. After the patient had inhaled this solution for a few minutes, the breathing became quiet and easy; and before the half ounce was exhausted the patient was asleep. By repeating this remedy every few hours, with a stimulating system of treatment by the mouth, the patient, an old lady aged seventy-five, soon passed the dangerous stage, and is now recovering.

I have often used this method of treatment in asthma with magical effect, and can strongly recommend its trial in the early state of acute bronchitis, as I have found it marvellously successful. It has the advantage of the ordinary bronchitis-kettle, that it moistens the air of the sick-room, and administers a powerful remedy at the same time.—*Br. Med. Journ.*, March 20, 1886.

Blenkinsop on Inhalation in Pulmonary Diseases.—Carbolic acid, creasote, terebene, eucalyptus, thymol, pine oil, as well as iodine and iodoform, are amongst those most frequently used, either in combination with each other, or with antispasmodics, sedatives, etc. In Germany rabbits inoculated with tubercular matter were considered to have been kept free from tuberculosis by breathing an atmosphere saturated in benzoic acid. According to Dr. Cottreaux, of Paris, chlorine gas is a specific for every form of phthisis. There are many cases in which sulphur medication has proved of great value, those engaged in the manufacture of sulphuric acid being also stated to be protected against phthisis. Dr. Jaccoud, of Paris, believes much in the curative effects of the pure creasote of the beech, and gives details of cases. Terebene and carbolic acid are also advantageously employed by the mouth to check intestinal infection from the sputa swallowed so frequently by patients, the lymph follicles of the intestines being so very prone to tubercular infection. Lastly, iodine proves most useful in the second stage of phthisis, and, with carbolic acid, in the purulent expectoration accompanying pneumonia; it has also a soothing effect when combined with ether.—*Lancet*, March 27, 1886.

Sokoloff on Inhalations of Cold Air in Enteric Fever.—1. Inhalations of cold air produce a greater or less depression of febrile temperature; but, contrary to the author's expectations, their effect is weaker and more fleeting than that of cold-water baths, and even of cold-air baths.

2. The inhalations produce retardation of respiration (in average, four a minute), and pulse (in average, six beats a minute). At the same time, breathing becomes deeper, and the pulse fuller.

3. The inhalations relieve dryness of the mucous membranes and skin.

4. Inhalations of cold air promote resolution of the bronchitis which often com-

plicates enteric fever, and increase the process of ventilation in the lungs.

5. Hence the inhalations lead to an improvement in the patient's general state, sleep, and appetite.

6. Inhalations of cold air act antiphlogistically on the inflamed respiratory tracts, and hence may be employed as a rational therapeutic agent in the treatment of pulmonary inflammation.

7. Systematic inhalations of cold air may prove of use also in chronic bronchitis, asthma, and emphysema.—*Vornno-Mediz. Journ.*, 1885—*Lond. Med. Record*, March 15, 1886.

Jansen (H. A.) on Thallin.—In the *Week. v. h. Ned. Tijds. v. Geneeskunde*, 1885, No. 44, the author has recorded experiments with the sulphate of thallin, and he extols the antiseptic action of the drug, a $\frac{1}{4}$ -solution preventing the decomposition of urine for a week, and the urine of persons taking the drug internally not putrefying for six days.

In typhoid fever five or six grains cause a marked fall of temperature, with sweating and no untoward effects. The temperature remains low for three hours, but after five and one half hours it regains its previous elevation. In acute tuberculosis and pulmonary phthisis a dose of three grains lowers the temperature two degrees.

In seventeen cases of malaria, two- to three-grain doses, repeated in an hour, were given two or three hours before an expected attack.

In twelve cases the paroxysm was aborted; in one case the administration had to be repeated, and in all the rest recourse was finally had to quinine.

According to the author, thallin has no untoward effects, as have kairin and antipyrin, and its antipyretic action lasts longer.—*Cent. f. klin. Med.*, March 6, 1886.

Da Costa on Malarial Toxæmia—Enlarged Spleen Treated by Ergot.

—The patient had irregular chills for three months preceding his coming into the wards, on the 21st of last October, and even after his admission he presented at times these irregular evidences of malarial infection. He was treated chiefly with quinine, given in amounts not exceeding sixteen grains daily, and occasionally with mercurials, to relieve a tendency to constipation, but he did not improve greatly. It is true that the manifestations of malarial poisoning, in so far as the outbreaks of

ehills were concerned, disappeared, but the enlargement of the spleen was very little influenced; and in addition to this I find, in a note made on the 7th of last month, that "he has a sallow skin, yellow-tinged conjunctiva, and his liver is slightly enlarged; and the spleen extends from the sixth rib nearly to the ilium, and horizontally the dullness extends to within three inches of the median line." There was also some dyspnoea, and a trace of albumen in the urine. There was no indication of disorder of the heart. Upon examination of the blood no change was detected in the usual proportion of the white corpuscles, but there was an actual decrease in the red of about one half. Therefore it was a case of anæmia, of splenic origin, due to malarial poison, with beginning leucæmia. I decided then to give him ergot, a plan of treatment I originally employed seven years ago, and have found very successful. The quinine was reduced to tonic doses of six grains daily, and the fluid extract of ergot was given, a drachm three times a day.

The man has since then steadily improved. His tongue is clean, the lips are of good color, his conjunctivæ are clear, and his bowels are regular. The liver dullness now has decreased to normal; but what will interest you most is the size of the spleen. The percussion dullness, which formerly extended across to the ilium, I find this morning is not more than an inch below the border of the ribs; the upper limit of dullness begins on a line drawn two and a half inches below the nipple, at the lower border of the sixth rib, and extends to about two fingers' breadth below the margin of the rib in the left axillary line. Transversely, the dullness does not now begin until about six or seven inches from the median line, so that the spleen has been reduced to nearly its normal conditions. It would be still considered a slightly enlarged spleen in a person otherwise healthy, but it is only a little larger than normal, and we say that practically the spleen has been restored to its normal size. The temperature throughout has been about normal, except during the chills. The blood was again examined two days ago, and it was found that the proportion of red and white corpuscles had been restored to the normal; in other words, the red corpuscles had doubled in amount.

That the cure in this case may be attributed to the ergot, there can be no doubt. It was not due to the quinine, because that had been given before, and in large doses, without producing the same effect.

What strikes us here is the interesting physiological fact that, under the action of the ergot upon the spleen, the blood has become normal. We gave him no iron. As his spleen came down in size the blood improved, although since admission he has had none of the remedies which are supposed to act upon the blood and increase the number of red corpuscles.—*Phila. Med Times*, Jan. 23, 1886.

Mühl (A.) On the Cure of Traumatic Trismus and Tetanus.—The author, in *Arztl. Intelligensblatt*, '85, No. 47, narrates a light case of traumatic trismus and tetanus treated by large doses of salicylate of sodium (morphine also freely), on the supposition that tetanus is a disease caused by cold. The patient was a girl of twenty-one with exquisite trismus, opisthotonos, asphyxia, and a feeling as though the chest was held in a vice, which of course made her sleepless. She slept well the first night after treatment was commenced and awoke free from pain. Recovery was speedy.—*Cent. f. klin. Med.*, March 13, 1886.

Grosholz (F. H. V.) on Strychnine in Uterine Hemorrhage.—Though I have not made any trial of a course of strychnine for pregnant women, to prevent the occurrence of hemorrhage in labor, I have for the past ten years been constantly in the habit of administering it to arrest *post-partum* hemorrhage.

My favorite combination to produce regular uterine contraction in these cases is a mixture containing fifteen minims of tincture of nux vomica, fifteen minims of tincture of opium, and half a drachm of ammoniated tincture of ergot. I have almost invariably had most satisfactory results with this dose. Nux vomica, through its alkaloid strychnine, has the direct and almost immediate effect of producing muscular contraction—especially strong in paralyzed parts—and also of retarding the circulation; nor is it improbable that the exaltation of the nervous system produced by its administration renders the action of the ergot more prompt and effectual. The object I had in view in adding the opium was mainly to prevent irregular or spas-

modic contraction of the uterus, and also to allay the excitement frequently present in these cases. I have found the preparation of ergot here mentioned particularly reliable, and its stimulant effect is of decided advantage. In abortions and miscarriages, I have also had satisfactory results from the administration of this mixture, given frequently and in smaller doses.

In future cases of known hemorrhagic tendency, I intend to try the effect of a course of strychnine, and expect that benefit will be derived from this anticipatory treatment.—*Lancet*, March 13, 1886.

Lardier on Strychnine in Alcoholism.—In the *Four. de méd. et de chir. pratiques*, June, 1885, Dr. Lardier states that he has for a long time employed strychnine in the treatment of delirium tremens, and regards it as a specific. It is necessary to give the drug in large doses. In one case, he gave one thirteenth of a grain every two hours for several days without obtaining any benefit. He then increased the number of doses, until he gave in all $1\frac{1}{2}$ grains in twenty-four hours. The patient soon fell into a refreshing sleep, and never showed a sign of strychnine poisoning.—*Lond. Med. Record*, Feb. 15, 1886.

Huchard (Henri) on the Hypnotic Action of Urethane.—This new medicament, introduced by Von Schmiedburg, is chemically the *carbonate of ethyl*, with a formula $\text{NH}_4\text{CO}_2\text{C}_2\text{H}_5$. It consists of colorless rhomboidal crystals which melt at 130°F ., vaporize at 370°F ., and are very soluble in water, ether, and alcohol. Its taste is agreeable and pungent, leaving a feeling of freshness like that of nitrate of potash.

Doses of from five to twenty grains when given to rabbits and guinea-pigs (according to Eloy) produce no toxic effects. They lower the temperature, produce torpor, sleep, a diminution of motility and sensibility, and a certain cataleptic condition without disturbing other functions. A hare, to which forty-five grains were given hypodermically, slept heavily all day.

The author has tested the drug thirty-two times on fourteen patients suffering from insomnia from different causes. All the patients, except two with tuberculosis, incessant cough, and dyspnoea, have been helped by the drug, which causes calm, peaceful sleep, without dreams or nightmares, without digestive derangement or

consecutive headache. Sleep ensues in from ten minutes to an hour and lasts from four to ten hours. He gives to adults from forty-five to sixty grains in a single dose, and insists that it must be so given to secure its hypnotic effect. An aromatic water forms a good vehicle. The sleeplessness of alcoholics, consumptives, and patients with heart disease is very amenable to urethane.

He has never seen the drug disturb the stomach, heart, or nervous system. In sleeplessness caused by continued pain it is powerless.—*Bull. gén. de thérap.*, Feb. 15, 1886.

Sansom (A. E.) on some Modern Remedies in Heart Disease.—I think we are justified in concluding that caffeine, in the treatment of cases of mitral regurgitation in which failure of compensation has occurred, is a valuable agent; that it is a powerful diuretic, and is therefore very valuable in cases manifesting dropsy; that it tends to increase the force of the heart, to calm the respiration, and reduce the temperature; but that it fails in some cases to be of benefit, even though it may manifest its diuretic effect. Like other heart-tonics, it fails especially in pericarditis, where probably the direct enfeebling agency of the disease upon the myocardium is a cause which operates against it.

My general conclusion is that in convallaria we have a drug which may be occasionally used with advantage in cases of mitral regurgitation; that it should be continued for no longer than weekly periods without interruption; that in cases manifesting dropsy it should be accompanied with caffeine; but that for general and systematic administration in mitral regurgitation it will not (except at intervals) usefully supplant digitalis.—*Lancet*, March 27, 1886.

Jacobi (A.) on the Use of Digitalis.—The general nature of digitalis and the effects produced by it were well known to all, and needed no special mention. The cardiac symptoms requiring the use of digitalis were irregular and frequent pulse, passive congestion of the pulmonary circulation with secondary bronchial catarrh, small arterial wave, cyanotic surface, coolness of the skin, sensation of chilliness, loss of nutrition, cutaneous oedema, and diminished micturition.

The effect produced by the drug in such cases was first described by Withering, one

hundred and thirty years ago, who regarded digitalis as a sedative. To Traube is due the credit of proving that digitalis is a stimulant to the heart and blood-vessels.

Digitalis, with or without iron and nuxvomica, acts admirably in cases of fatty heart.

In acute and chronic pulmonary consumption it is a valuable adjuvant to such remedies as arsenic, iron, etc. Repeating what Withering had said more than a century and a quarter ago, he knew of nothing which regulated so well the pulmonary circulation in phthisis as digitalis, which manifested itself by increased regularity of the pulse, etc., and digestive disturbances were not a contra-indication, since they so frequently depended upon venous stasis. In general the dyspepsia of pulmonary affections indicates the use of digitalis.

Anæmia, from almost any cause, is benefited by the use of this drug.

It is not a diuretic in healthy persons; on the contrary, it diminishes the elimination through the kidneys of both water and solid material, and when in such conditions as that of general cachexia it acts as a diuretic, it does so only by increasing arterial pressure.

From experiments on either man or the lower animals no definite conclusions have been reached concerning the exact dose required to produce the best effects.

According to his experience, the following are effective and safe: digitaline, from one tenth to one eighth of a grain daily, administered in three doses; extract, from one and a half to two grains, in three or two doses, may be taken, day after day, for one or more weeks. He valued the last preparation very highly, because it can be given in pill form and is easy of combination with other drugs. Digitaline is often inert. Of the leaves, from four to seven grains may be given daily with safety for as many successive days and weeks. The fluid extract had not with him proved so satisfactory as other preparations, and in urgent cases he had resolved not to rely upon it any more than upon digitaline.

The writer then related briefly several cases in which he had prescribed digitalis with advantage. An atheromatous heart and arteries do not bear much digitalis; the muscle is destroyed to a greater or less extent, and therefore cannot be lashed into healthy action; neither in cases of myocarditis does it do well. He had used

it with benefit in Graves' disease, combined with other drugs.—*N. Y. Med. Record*, March 29, 1886.

Muñoz on Caffein.—In the July, August, and September numbers of *La Cronica Medica*, of Lima, there appears a careful and exhaustive review of the chemistry and the physiological and therapeutic effects of caffein. It is in diseases of the heart that caffein finds its chief therapeutic use, and more particularly in disease of the mitral valve; in lesions of the aortic orifice caffein is absolutely contra-indicated, whether the effect of the lesion be obstruction or insufficiency, or both together. It sometimes happens, however, and this not unfrequently, that, in consequence of the dilatation of the left ventricle in the second or hypersystolic period, an insufficiency of the mitral valve is produced; in these cases, if the symptoms due to the mitral insufficiency predominate over those of the original lesion, then the treatment must be directed to relieve these, just as if no aortic mischief existed, and digitalis and caffein are indicated. It is, however, in diseases of the mitral valve that caffein is chiefly useful, and especially in the third or hypersystolic period, while the compensatory hypertrophy of the second or hypersystolic period is failing. In these cases it may be given alone, or perhaps still better, in combination with digitalis, and it should be continued alone in the intervals during which it is necessary to suspend the administration of the digitalis. Caffein and especially, according to Gubler, guaranin, which is chemically identical, from their power of increasing the tension of the circulation, possess the property of provoking abundant diuresis. The diuresis is in relation with the amount of serum in the cellular tissue; when dropsy no longer exists, the diuretic effect is much less; in health, too, caffein causes only very slight diuresis. In the fourth or asystolic period, the heart has become a prey to granular fatty degeneration, and the so-called cardiac cachexia is established; to this period Gubler has also given the name of cardioplegia. Digitalis is now absolutely contra-indicated, but from caffein marked improvement may be obtained—"veritable resurrections," according to Dujardin-Beaumetz. Professor M. Peter, in his clinical and practical "Treatise on Diseases of the Heart," 1883, says: "Digitalis is especially indicated with excessive frequency of the beats of the heart,

its action being tumultuous and irregular; caffeine, especially with weak action and slow contractions." Dr. Muñoz recommends that caffeine should be given in solution; as a powder or pill it is very insoluble, requiring 75 parts of gastric juice to dissolve it, and pills may pass through the alimentary canal undissolved. The dose varies from 10 centigrammes to 2 grammes daily; the latter quantity is often necessary in heart cases to obtain the proper effect of the drug. He prefers to give it in aqueous solution, with benzoate, salicylate, or cinnamate of soda to increase its solubility. Caffeine may also be often given with advantage hypodermically, when vomiting exists, or when it causes, as it often does, pain in the stomach, or in those very grave cases when death seems imminent, and a prompt and certain effect is wanted. —*Lond. Med. Record*, Jan. 15, 1886.

Poulet (V.) on a Tincture Composed of Pepper, etc., called Apone.

—The author macerates for a month 200 parts of bruised peppers and 100 parts of liquid ammoniac in 1,000 parts of 60- $\%$ alcohol. He adds 10 parts each of the essence of thyme and chloral hydrate to the expressed liquid, and keeps it in a bottle with a rubber stopper. He calls this product apone.

He uses it chiefly externally, pure or mixed with equal parts of olive oil. A little is poured upon a piece of flannel and thus rubbed upon the skin or left in contact with the part and covered with wadding. The friction can be practised daily, or oftener. Internally he gives it in 10- to 20-drop doses in water, followed by a half-glass of water or cold tea.

He lauds apone for the relief of the pain of rheumatism, gout, neuralgia, and the varied phenomena of hysteria. Rubbed on the neck or chest it is very helpful in coryza, angina, and influenza, while both internally and externally it acts well in dysentery, diarrhoea from cold, and typhoid fever. For hemorrhoids he gives 20 drops morning and evening in a glass of cold water. It forms a good addition to beverages for hot weather. In sea-sickness he gives it in 15-drop doses and also rubs it upon the epigastrium. —*Bull. gén. de thérap.*, Feb. 15, 1886.

Jendrassik on Calomel as a Diuretic.—Jendrassik has used calomel with excellent results in the dropsy of heart disease. In six cases, comprising twenty-four

separate experiments, diuresis occurred twenty-three times; the maximum daily amount of urine varying between 2,100 and 9,500 cubic centimetres (95 to 359 ounces). The amount of diuresis depends on the amount of calomel given. As a rule, the dose was 0.2 gramme ($1\frac{1}{2}$ grains), three to five times a day. The diuresis did not appear till after the administration of the drug for one day, and lasted as long as the oedema was present. Unfavorable symptoms noticed were a metallic taste in the mouth, salivation, and stomatitis: but it is important, the author says, that the diuresis appears before the onset of diarrhoea caused by the drug. The urine contains an excess of chlorides; hyaline casts are often seen. In a case of pleurisy, with effusion, calomel had no effect on the urine. As to the mode of action of the drug in cases of cardiac dropsy, the author says that it can hardly be through the heart, which is only secondarily and slightly affected by calomel. It is probably through the kidneys—a sort of diabetes insipidus being established. As precautions in the employment of this mode of treatment, small doses of laudanum combat incipient diarrhoea; and for the stomatitis a mouth-wash of chloral of potash is prescribed from the first. Though no harmful action on the kidneys was noticed, a caution is given against employing this treatment in disease of the kidneys. —*Pester med-chir. Pres.*, Nos. 51 and 52, 1885. —*Lond. Med. Record*, March 15, 1886.

Plummer (H.) on Convulsions in an Infant Cured by Morphine.

—The author reports the case of an infant, twenty-two months old, who was seized, after a short period of malaise, with convulsions. She was seen after the second convulsion, and did not then appear to be very ill, but was fretful; the temperature was 102° , and there was some little cough, but there were no signs of pneumonic trouble. Bromide of potassium in five-grain doses was given every hour, but the convulsions increased in severity and frequency. The bowels had been moved by calomel and castor oil. In the afternoon of the second day the child was in the following condition: The tongue was protruded between the teeth, swollen, and constantly in motion; the forearms were flexed and rigid, the thumbs being firmly drawn into the palms, and the lower extremities were

likewise rigid; the child was now unable to swallow, and the pupils were widely dilated. The convulsive attacks recurred at such short intervals that they seemed to be continuous. Other remedies having proved ineffectual, Dr. Plummer determined to employ morphine, and accordingly gave one-sixth grain hypodermically. In a few minutes the little patient fell into a sleep, in which she remained, awaking only to drink, for twenty hours; the pupils became of nearly the normal size, and the muscular system became relaxed. From this time she continued to improve, although she seemed nervous and fretful for a time, and the convulsions did not return.—*N. Y. Med. Record*, March 27, 1886.

Lashkevitch on Oxygen Inhalations in Nervous Diseases.—In the *Russkaja Meditsina*, Nos. 8, 9, and 10, 1885, Professor V. G. Lashkevitch, of Kharkov, publishes a very interesting lecture on the use of oxygen inhalations in the treatment of diseases of the nervous system. At the outset he states his surprise at the fact that text-books on neuropathology do not even mention such a powerful therapeutic agent.

Oxygen proved useless in paralysis agitans (three cases), chronic meningomyelitis, spasmodic tabes, and chorea minor. It gave excellent results in the following cases: 1. In a severe case of hystero-epilepsy, the inhalations invariably and rapidly cut short the paroxysms, produced quiet sleep, improved the general state, and ultimately, after two weeks' treatment, cured the patient (at least temporarily). 2. In a case of hysteric motor and sensory hemiplegia, inhalations of one minute's duration removed all the symptoms. 3. In a severe case of hysteric convulsions and excitement after a mental shock, one minute's inhalations of oxygen, frequently repeated during the day, not only cut short the attacks, but brought a complete recovery. 4. In a severe case of agonizing spasmodic cough in early pregnancy, the inhalations immediately arrested cough, and, after two days' use cured the patient. 5. In a case of true hydrophobia (*lyssa humana*), the inhalations strikingly relieved the patient's sufferings (removed intense *aërophobia*, inhibited convulsions, etc.); the case, however, ended fatally. [6. A successful case of the treatment of hydrophobia by oxygen inhalations was published by Professor Lashkevitch in the *Meditsinsky*

Vestnik, No. 16, 1871.] 7. In a case of syphilitic disease of the spinal cord, with spurious *aërophobia* and hydrophobia, and most intense muscular superexcitability, all the symptoms completely disappeared after treatment of three days' duration. 8. It was useful in a case of bronchial asthma, periodically recurring at the menstrual period.

Comparing these two groups of cases, Professor Lashkevitch points out that oxygen has proved of service in nervous disturbances of reflex nature; while, in the absence of the latter characteristic, it was found of no use whatever. Hence, the author prophesies good success from the oxygen treatment in traumatic tetanus and eclampsia of reflex origin. He tried oxygen inhalations, also, in two cases of stenocardia in patients with arterial sclerosis and aortic dilatation, and in one case of Graves' disease. In the stenocardiac cases, the paroxysms, which had previously lasted from one to two hours and been very severe, under the treatment shortened to fifteen minutes and became very mild. In the case of exophthalmic goitre (a chlor-anæmic girl, aged 17), oxygen considerably relieved palpitation and tension in the eyeball.—*Lond. Med. Record*, Jan. 15, 1886.

Alexander (J. B.) on the Value of Nitrate of Silver.—Mrs. P., healthy and living in comfortable circumstances, was delivered of a dead foetus, April 10, 1875, labor natural. No unusual phenomena appeared until forty-eight hours after, when, without any discernible cause, she exhibited unmistakable signs of hysterical mania. Her lochial discharges continued normal, temperature normal, bowels in good condition; the most searching examination failed to discover any cause for the attack, more than her puerperal condition, which was only physiological, not pathological. I treated the case several days with the usual remedies for hysteria, at the same time observing that every organ performed its functions aright, without any benefit. I called in two other physicians. They advised counter-irritants over the ovaries, and 30-grain doses of bromide of potassium to be repeated *pro re nata*. This course but added fury to the tempest. By the tenth day quiet could only be obtained by chloroform inhalations. When she would escape from the anæsthetic her apparent strength was so great that it required two strong men (her brothers) to restrain her from violence.

At this time, the eighteenth day, while in the acme of her madness, I gave her $\frac{1}{4}$ gr. silver nitrate in pill, repeated in four hours. By the time the third pill was given, eight hours from taking the first, she was as calm as if she had never been a maniac. The medicine was continued for several days at longer intervals. Her recovery was prompt and perfect. — *Med. World*, March, 1886.

Lewin (L.) on Piper Methysticum (Kawa Kawa).—*Piper methysticum* forms a shrub about 6 feet high, though specimens of from 12 to 16 feet high have been reported. The character of the growth is similar to that of the bamboo. The leaves are deep heart-shaped. The numerous naked, jointed, and twisted stems rising from the same root have a diameter of from 1 to $1\frac{1}{4}$ inches. The spaces between the joints are from 3 to 4 inches long; the ramified root with its herbaceous rootlets (in its fresh state of grayish green, in its dry state of a grayish brown), weighs on an average, in the fresh state, from 2 to $4\frac{1}{2}$ lbs. A sectional cut of the root shows a net-work of woody bundles, between which there is a deposit of grayish-white, easily removed, spongy, pulpy substance.

Kava is found within about 32 degrees north or south of the equator, and between the 135th degree of eastern and the 130th of western longitude (from Greenwich). Heretofore it has been assumed that the plant was found only where there existed aborigines of light color, but recent observations make it probable that among other places, *piper methysticum* is also found in New Guinea, and that it is used there in the same manner as elsewhere.

The freshly dug, or freshly dried clean root is cut up, on some islands also freed from the epidermis, and is then chewed. For this chewing, young men, on some islands also women and girls with healthy teeth, are employed. The mouth is previously cleansed. The chewing takes place slowly, solemnly, in the same way as is done by the ruminants. The crushing of the roots, as many white people do it, is said to furnish, in so far as the effect is concerned, a much less pleasant beverage. The chewer takes each piece when sufficiently chewed with thumb and index finger out of his mouth, places it in a large dark-brown vessel called *tamoa*, having a capacity of from four to six litres, and which is not wanting in any Samoan household. Upon

the morsels contained in the *tamoa*, water is poured, and the whole is stirred with the hands.

The person preparing the beverage introduces into the vessel the fibres of the cocoa palm or generally the inner bark of the wau (*paritium tiliaceum*), gathers up with this fibre all the solid particles, and presses the whole under certain defined movements of the body. The fluid is now ready for drinking and is poured into cups made of the half of a cocoa-nut shell.

There is contained in kava a resinous substance. This is obtained by extracting the root with alcohol, as a tenacious greenish brown mass containing kawahin and yangonin.

This substance, which is contained in kava to the extent of about two per cent., represents the active constituent of kava. I succeeded in dividing it into two different substances by treating it with petroleum ether. This ether extracts from the resin or from the finely powdered root itself by boiling a substance which is only present in small quantities, and which after evaporation of the petroleum ether forms a yellowish-green, oily, thin, fluid substance, producing upon paper a partly transparent spot, is free from nitrogen, and possesses the characteristic smell of kava. I will preliminarily designate this as alpha kava resin. It is easily soluble in alcohol, soluble in water only in traces, but imparts its odor to the latter after having been in contact with it for a long time. The taste is somewhat fatty, aromatic, sharp, stinging, and pepper-like pungent. The secretion of saliva is increased. Even during the burning sensation, especially, however, afterwards there occurs numbness in all parts which have been in contact with the remedy. We have the sensation as if the mouth had been burned. The sensibility of the throat in every sensitive person decreases after a local application of the remedy to these parts. The increased secretion of saliva soon ceases, and after some time also the diminished sensibility of the mucous membrane of the mouth or of the tongue.

If we continue to place alpha resin in very small quantities upon the conjunctiva of the eye of an animal, no matter whether amphibious or warm-blooded, repeated blinking takes place, and after quite a short time there is produced complete insensibility of the conjunctiva and of the cornea to irritation and even stronger insults. The

eye can be scratched, irritated, pressed, without any trace of reaction in the animal being observed. I have seen this insensibility in guinea-pigs continue for hours. The little slit grows whiter, the eyeball appears much more prominent, the pupils retain their normal width and capability of reaction to bright light. Anatomical lesions of the conjunctiva and cornea have not been observed. Gradually complete sensibility of the respective parts returns.

If the alpha resin is injected into the cellular tissue under the skin of either amphibious or warm-blooded animals, insensibility takes place as a result of a local action in the region of the injected point, and probably as far as the injected remedy comes in contact with the tissues. Mechanical, chemical, and thermal irritations, if the full effect has been reached, produce no reflex actions. On frogs it can be shown that even the electric irritability decreases a little, but only in the region of the injected point. Thus, the upper part of the thigh can for a certain time retain its full sensibility if the injection has taken place in the lower part. In frogs, if the extremity into which the substance had been injected had been previously shut off from circulation, I observed the decrease of sensibility after several hours, to extend from the injected lower part to the upper part. In this case I assume that gradually a transportation of the active substance into the heretofore intact parts takes place, together with an action upon these parts. In rabbits and guinea-pigs I have seen the anæsthesia always remain quite local.

If sufficient quantities have been taken a feeling of comfort, freshness, and satisfaction is experienced. It has a quieting effect, and the inhabitants of the islands claim particularly that they never become inclined to fight or quarrel, as is the case after the use of alcohol. Combined therewith, there exists in the mouth an agreeable cooling sensation, which may last from one to two hours. Consciousness and reason are in nowise altered. The mental faculties are even said to become sharpened. It is said that after the use of kava bodily exertions are easily borne. After more of the active substance has been absorbed there occurs a condition of happy carelessness, the individual shows a dreamy consciousness, the limbs become languid, gradually the will loses its power over the muscles, co-ordinate movements can not easily be

executed, the individual lies down, may gradually fall asleep, or oftener may fall into a somnolent soporose state. This whole scale of effects does not begin with any excitement. When taken in excess it produces intense nausea, and headache; paresis of the extremities, nervous trembling and somnolence quickly supervene.

Paralysis taking place as an expression of the general effect, is a central one. It reaches at first the motor ganglia situated in the anterior portion of the gray substance of the spinal axis. Later it affects the sensory centres in the posterior portion of the gray substance. Finally, perhaps also the ganglia of the brain are influenced.

The dissection of animals that have perished through these experiments never showed any indication of inflammation in the mucous membrane of the stomach but on the contrary a condition of extreme anæmia.

The indications for its use hereafter may be inferred from what I have said of its action. Its character as a local anæsthetic, and its power of decreasing the excitability of the ganglia of the spinal marrow are the important facts. To these is joined its quality of mental rest. I may further remark that the kava preparations might best be taken after meals.

From the root, macerations in any concentration can be prepared, as well as alcoholic tinctures, fluid extracts, solid alcoholic extracts and resins.—*Translated from Berl. K. lin. Woch., Jan. 4, 1886, for Parke, Davis, & Co.*

Maslennikoff on Decoction of Lemons in Intermittent Fever.¹—Having reviewed the literature of the subject, Dr. Nikolai N. Maslennikoff proceeds (*Kavkazsky Medits. Sbornik*, vol. 39, Fasc. ii., 1885, p. 29) to describe his own observations on twenty cases of intermittent fever, treated by decoction of lemons. Seven of the patients were affected by the fever for the first time, three for a second; the remaining had passed previously through several malarial attacks. In thirteen of twenty cases a quotidian, and in seven a tertian, variety was present. In sixteen cases the spleen was found to be enlarged and painful (in fourteen, both during the paroxysms and the intervals). The decoction was prepared after Maglieri's method (see the *London Medical Record*, May, 1883, p. 197); that is, every evening

¹ See March number ANALECTIC, page 107.

a whole fresh lemon was cut into very thin slices, put into eighteen ounces of distilled water in an earthen pot, and boiled (for two hours) until six ounces of decoction remained. On the next morning the liquid was forcibly strained through a piece of gauze, and then given to the patient to take immediately at several gulps. The decoction was used in that way for ten or fourteen successive days. In none of the patients did any gastric disturbances occur. The results obtained by Dr. Maslennikoff were not so successful as those by Dr. Putokhin (see the *London Medical Record*, February 1885, p. 71). In only six cases, four of which were of quotidian fever and two of tertian, a cessation of paroxysms ensued. In two of the remaining patients, the paroxysms became less severe; and in three the type of fever underwent a change. In none did any alterations in the size of the spleen take place. All cases where decoction of lemons had failed, were subsequently, mostly very rapidly, cured by quinine. The general conclusion reached by the author is that, as far as severe Caucasian fevers are concerned, decoction of lemons has, except its agreeable taste and harmlessness, no advantages whatever over other substitutes for quinine.—*London Med. Record*, March 15, 1886.

TOXICOLOGY.

Jacob (E. H.) on Deaths from Anæsthetics in 1885.—The following deaths occurring during narcosis by chloroform agents have been recorded during the past year, or have otherwise come to my knowledge:

The list of deaths occurring during the administration of ether includes at least one remarkable case, which I will give in greater detail.

CASE I.—This occurred in the London Hospital. The patient, a man, aged sixty-two, was narcotized in order to reduce a dislocated shoulder. He partially recovered, but the bag (Ormsby's inhaler) was again put on his face. In three minutes he began to look pale, his breathing was feeble; dusky pallor increased, in spite of artificial respiration.

At the *post-mortem* examination, the lungs were emphysematous and congested, and there was bronchitis. The heart was flaccid and fatty, with adherent pericardium.

CASE II.—This case occurred in the practice of the Leeds Dispensary. A man, aged fifty-eight, suffering from empyema, took ether in order to have the pleura incised. For about seventeen minutes he breathed well, and was of good color. The ether was then discontinued, as the narcosis was sufficient, and no more was given. About fifteen minutes afterwards, the pulse and breathing began to fail. He seemed to die in a sort of syncope. No *post-mortem* examination was allowed.

Locality.	Sex and Age.	Operation for	Manner of Death and Post-Mortem Notes.
1. Salford Infirmary.	Boy	Necrosis of leg	—
2. Glasgow Western Infirmary.	Girl	Dressing stump	Respiration ceased. <i>Post mortem</i> : Extensive thrombosis of venous system.
3. Northampton Hospital.	Fem'le, 57	Removal of tumor	After 90 minutes, sat up, became convulsed, and fell back unconscious. Breathing went on 20 minutes, but no pulse. No <i>post-mortem</i> examination.
4. Birmingham Workhouse.	Male, 40	Innominate aneurism	Urgent dyspnoea on lying down, and stoppage of respiration after a few inhalations. Pulse beat for 20 minutes after. <i>Post mortem</i> : Large aneurism of innominate.
5. Guy's Hospital.	Male, 24	Dislocation of humerus	Syncope. <i>Post mortem</i> : Slight disease of large vessels.
6. Middlesex Hospital.	Fem'le, 53	—	<i>Post mortem</i> : Enlargement of heart and liver, and disease of other organs.
7. Langley Moor.	Male, 28	Paraphimosis	No <i>post-mortem</i> examination.
8. Newcastle Infirmary.	Male, 53	Cancer of tongue	Syncope at end of operation.
9. Glasgow Royal Infirmary.	Male, 45	Ligature of femoral	Syncope at end of operation on giving a little additional chloroform. <i>Post mortem</i> : Heart diseased; aneurism of mitral valve.
10. Charing Cross Hospital.	Fem'le, 9	Inserting drainage-tube in hip	Syncope. Patient greatly emaciated; lungs congested.
11. Newcastle.	Young man	—	Syncope after partial recovery of consciousness. No <i>post-mortem</i> examination.
12. London Hospital.	Male, 56	Removal of tumor of upper jaw	Became cyanosed early, pulse stopped just as operation was completed. <i>Post mortem</i> : Some fibroid degeneration of heart, and congestion of bases of lungs.

CASE III.—A girl, aged ten, much emaciated, and looking very ill, was brought to a surgeon to be sounded for a calculus. When she had taken but a few inhalations, she was observed to be very pale, the pulse ceased, the breathing continued. The usual remedies—artificial respiration, galvanism,

injections of brandy, etc.—were tried in vain. The girl appeared to be suffering from tubercular disease of the kidney, but there was no *post-mortem* examination.—*Brit. Med. Four.*, March 13, 1886.

Powell (A.) on Poisoning by Chloroform; Recovery after Seventeen Hours' Unconsciousness.—A woman, aged forty-four, swallowed, from suicidal motives, about four ounces of lin. chloroformi (B. P.).

On admission, the surface of body was cold; lips congested; pupils fixed and dilated; breathing stertorous; conjunctival reflex absent; pulse feeble, but regular; quite insensible.

The stomach was at once emptied and washed out, the contents smelling strongly of chloroform and camphor. She continued in a state of profound chloroform narcosis until next morning. From time to time the breathing was stimulated by an electric current from the nape to the diaphragm. During the night some rigidity of the arms was noticed, and the temperature rose very rapidly, until at 3 A.M. it attained a maximum of 106.8° . After cold sponging it fell at the rate of a degree an hour. At 4 A.M. some movements of the limbs were noticed; and at 8 A.M., after a severe attack of vomiting, she recovered consciousness, which had been absent seventeen hours. A slight attack of gastritis detained her in hospital two days longer, after which she was discharged quite well.—*Lancet*, Feb. 27, 1886.

Tanner (C. E.) on Belladonna Poisoning; Hyperpyrexia; Death.—A strong, healthy-looking servant girl, aged sixteen, was admitted at 4 P.M. on September 4, 1885, with the account that she had swallowed some belladonna liniment (B. P.) an hour earlier.

The patient's face was flushed, her tongue dry, and her gait unsteady. She was very drowsy, being roused with difficulty, and giving uncertain and evasive answers; the pupils were partially dilated; breathing was shallow, regular, 20 per minute, and the pulse was 98. She complained of dryness of the mouth and throat. A drachm and a half of sulphate of zinc given immediately, followed by copious draughts of warm water, produced profuse vomiting in less than ten minutes. As there was not much improvement in the symptoms, an œsophageal tube was passed, and the stomach washed out three times. The

patient, however, became more drowsy, and the faradic battery was resorted to, and applied at intervals; while the face, chest, and abdomen were slapped with a wet towel.

The temperature was now found to be 105.6° Fahr., while the pulse was 120.

Two thirds of a grain of pilocarpine was administered hypodermically at 7.30 P.M. Sweating began at 7.35 P.M., became profuse at 7.45 P.M., and lasted till 8.05 P.M. Improvement was most marked after this remedy; the pupils, which had been fully dilated, returned to normal; the respiration became more deep, and the patient began to show signs of returning animation, opening her eyes, and groaning when slapped with the towel, and moving her limbs when the faradic current was applied, even making indistinct efforts to speak.

This improvement was not long maintained, however, and the temperature continued to rise, reaching 107.4° Fahr. at 8.20 P.M., while the pulse-rate had increased to 160, being almost imperceptible at the wrist. Half a grain of pilocarpine was injected at 8.30 P.M., but failed to produce any sweating, although the pupils, which had again become fully dilated, returned to half dilatation. The patient gradually sank, and died by 9 P.M., six hours after swallowing the poison. The temperature in the axilla just before death was 108.6° Fahr. The pulse was imperceptible; the respirations grew gradually slower.

At the *post-mortem* examination, a considerable amount of thick, tenacious mucus, of a greenish color, was found in the stomach; but nothing else remarkable was noted.—*Br. Med. Four.*, March 27, 1886.

Suckling on Lead-Tremor and Brass-founder's Ague.—A lapidary who had suffered for years at times with lead-colic. A week before coming to the hospital, he noticed trembling of the hands, which came on somewhat suddenly, and obliged him to give up work. There was marked rhythmical tremor of the hands and forearms on extension, ceasing during rest; also wasting of the thenar muscles, and some weakness of the extensors of the wrist. There was a well-marked blue line on the gums.

The second patient had worked in brass for twenty-six years. The casting-shop was immediately under the room in which the man worked; and, whenever any casting was done, the dense fumes given off

always made him ill, causing shivering and sweating, very frequently also vomiting, pains about the chest and limbs, and bronchial catarrh. The man had a well-marked green line on the teeth, close to the gums, and his hair was of a greenish tint. Dr. Suckling met with the disease very frequently among the out-patients of the Queen's Hospital, and he found that iodide of potassium gave relief.—*Br. Med. Jour.*, March 27, 1886.

Quaife (W. F.) on a Case of Poisoning by Wax Matches, with Recovery.—On the evening of May 4th I was sent for suddenly to see a child that was said to have swallowed wax matches some hours previously, and to be suffering from the consequent symptoms. On my arrival at the house, I found the girl, some three years of age, very irritable, drowsy, and sick, the mother having already administered several doses of ipecac. powder which a neighboring druggist had given her; but there was no purging, and there seemed to be no pain at the stomach. The vomited matters consisted almost entirely of saliva and mucous fluid, and contained no blood. The mother said that in the morning the child had been playing next door with a box of blue-tipped wax matches, some of whose pigment was afterwards found sticking to her teeth, suggesting the probability that more had been swallowed. From the fact that the emetic brought up no blue pigment or strong-smelling matter, it seemed doubtful whether the symptoms were not simply due to the treatment; still, for safety, an emetic prescription of gum acaciæ and copper sulphate was left, and directions were given to purge the child with magnesia, and to feed her on milk and eggs. It was found afterwards that castor oil had been administered before my visit. In the morning there was looseness of the bowels (the motions being natural and free from the garlic odor), loss of appetite, and great irritability. The urine was obtained with difficulty, but was at this time tolerably normal in appearance. The symptoms continued for several days, during which counter-irritation of the scrobiculus cordis was followed up, and the child became nearly well. On the fifth day after the accident it first became certain that phosphorus had been swallowed. The skin became parched, the motions silvery-gray and costive, the conjunctivæ and skin jaundiced. The urine

was yellow, S.G., on the average, about 1,030; bile acids well marked by the sugar and H_2SO_4 reaction; quantity of urea large as precipitated by HNO_3 ; no increases in phosphates; no hæmoglobin; there was on one or two occasions a distinct trace of albumen. These symptoms gradually improved, and by the tenth day the child was running about quite well.—*Australas. Med. Gaz.*, Feb., 1886.

MEDICINE.

Fürbringer on Albuminuria from Mercury and Syphilis.—The author found, in 8 per cent. of syphilitics treated with mercury, who before had no albuminuria, about $\frac{1}{4}$ per cent. of albumen in the urine. The albuminuria sets in during the course of the second week of treatment, is at first trivial and intermittent, and then becomes continuous.

As red-blood corpuscles, epithelial or granular casts never appear, the author concludes that there is no inflammatory or catarrhal affection of the kidneys, but that the poison affects the capillary walls.

In syphilitics not treated by mercury, 12 per cent. had albuminuria, and also renal epithelium, casts, and blood corpuscles, appearances more like acute infectious nephritis. With three exceptions the albuminuria disappeared in a week under mercurial treatment.—*Vert. des Cong. f. in. Med.*, 1885.—*Forts. der Med.*, Jan. 15, 1886.

West (S.) on Baruria.—The patient, a woman, aged thirty-nine, complained after catching cold of pains and aching in her limbs, which became severe enough after a week to keep her in bed. When admitted, these pains continued, but there was swelling of joints. The temperature was 100° , and she perspired freely, but the sweat did not smell sour. The urine had a specific gravity of 1,040, and yielded copious crystals of nitrate of urea, with nitric acid. Her appetite had been for some days almost absent, and in the hospital she took but little milk or beef-tea. For two days the condition of the urine was the same, and the percentage of urea 5.1. This percentage gradually fell to normal, and as it did so all the patient's symptoms disappeared. The case was regarded as one of baruria. The account of the cases given by Prout was summarized and compared

with the present case, and reference was made to other authors, by some of whom the existence of the affection was questioned, while by others it was not referred to. A somewhat similar case, the result of over-feeding and constipation, was described, in which like symptoms were associated with a high urea percentage, and disappeared when the percentage returned to normal.—*Lancet*, March 20, 1886.

Kennedy (J.B.) on Tricuspid Regurgitation Resulting from Pressure Exercised by Peritoneal Effusion.—February 20th I was called to see James M., aged sixty. Weight 145 pounds. His general health had been excellent. Never had rheumatism or any disease of the heart; in fact, as he expressed himself, this would be the first time in his life that ever he had taken a drop of doctor's medicine. Upon my arrival I found him suffering from a severe attack of peritonitis. He informed me that a few days previous he had been seized with a violent pain which extended over the whole of the abdomen, and that he could not bear the slightest movement or pressure in that part. He lay on his back with his knees bent and legs drawn up. The bowels were constipated; tongue furred; constant nausea; breathing accelerated; skin dry and hot; the pulse rapid and weak. The case ran the usual course till the tenth day after my first visit, when I found a considerable amount of peritoneal effusion had taken place, and was surprised to discover some derangement of the heart. Upon examination tricuspid insufficiency was evident. Auscultation at the right auriculo-ventricular opening detected a prolonged first sound and a tricuspid regurgitant murmur. Pulsation of the jugular veins was observed to be synchronous with that in the carotid arteries. When, however, the patient assumed the erect position the heart symptoms almost entirely disappeared, clearly indicating that they were due in some way to the pressure of the peritoneal fluid.

Dr. Passerini, in the *Gazz. degli Ospitali*, says he believes the heart phenomena in such cases are produced mechanically by pressure in two ways: 1st. Owing to compression in the abdomen is produced venous ischæmia, while in the thorax there is venous hyperæmia, and as a result of these conditions engorgement of the right side of the heart. 2d. Owing to the gravitation of the peritoneal fluid when the patient is

in the recumbent position, the diaphragm becomes fixed, free expansion of the lungs is prevented, and hence the flow of blood through them is obstructed. In support of his theory, Dr. Passerini refers to the heart phenomena sometimes to be observed in advanced stages of pregnancy and ovarian tumors. That pressure is the indirect cause which produces those phenomena, there can be but little doubt. But we must also bear in mind that the forces which drive the blood through the lungs—when the obstruction takes place are not entirely mechanical, but in part chemical. If from pressure the free expansion of the lungs is interfered with, preventing the admission of the proper amount of air, the blood is, of course, hindered in its passage through the alveoli. In cases of death by hanging or choking, the right side of the head is always found to be distended with blood. And why? Because the air had been prevented entering the lungs, indicating that the chemical process of aëration is necessary for the natural flow of blood through those organs.—*Med. Age*, March 10, 1886.

Lee (J. G.) on the Mortality from Rabies in the Last Twenty-Five Years in Philadelphia.—In a period of only twenty-three years, from 1861 to 1883 inclusive, sixty deaths from "hydrophobia" (?) are registered. These deaths occurred by years in the following order:

1861 . . . 1 case.	1872 . . . 1 case.
1862 . . . 4 cases.	1873 . . . 1 "
1863 . . . 6 "	1874 . . . 3 cases.
1864 . . . 3 "	1875 . . . 2 "
1865 . . . 2 "	1876 . . . 4 "
1866 . . . 2 "	1877 . . . 4 "
1867 . . . 2 "	1878 . . . 2 "
1868 . . . 0 case.	1879 . . . 3 "
1869 . . . 7 cases.	1880 . . . 1 case.
1870 . . . 1 case.	1881 . . . 5 cases.
1871 . . . 1 "	1882 . . . 1 case.
	1883 . . . 3 cases.

As in nearly all deaths due directly or indirectly to traumatic causes, we find the male element largely predominating, fifty-two of our sixty deaths being males,—a fact easily explained by the reason that men, from the nature of their occupations, are more exposed to the bites of rabid animals, as for the same reason and on account of the ampleness of their dress the gentler sex run far less risk. Of the fifty-two males, twenty-two are recorded as adults and thirty as minors,—three of the eight female victims being adults and the remaining five minors,—the latter in each

instance showing an excess over the former.

Our figures correspond with the results of other observers, for, while not age up to sixty seems entirely exempt, nearly half the victims are children, the disease having taken place during what Bouley rightly calls "the age of imprudence, weakness, play, and teasing."

As we have seen from the foregoing figures, the disease seems never to have committed any great ravages in our city. Indeed, while from 1860 to 1884, a period of twenty-five years, the expectancy of it occurring among any ten thousand births was 1.8, the real mortality has been but 1.4 to every ten thousand deaths from all causes.—*Philadelphia Med. Times*, April 3, 1886.

Smith (J.L.) on the Treatment of Acute Infantile Bronchitis.—Infantile bronchitis is probably the most frequent disease which the physician is called upon to treat. It is usually mild and readily controlled by proper remedies, but in other instances, especially when neglected or improperly treated, it becomes by extension downward to the minute bronchial tubes, or to them and the alveoli, one of the most fatal maladies of infancy. It is, therefore, very important that bronchitis in the infant receive timely and proper treatment.

If the temperature rise to 102° or above, with the respiration in a corresponding degree accelerated, the cough painful, and the pulse frequent and strong, indicating extension downward of the inflammation, the following prescription I have found useful :

℞ Spts. ætheris nitrosi
Syrupi ipecacuanhæ . . . ʒi 3 ij.
Ol. ricini 3 ij.
Syr. bal. tolut. ʒj. M.

SIG.—Shake bottle and give half a teaspoonful to an infant of one year ; one teaspoonful to an infant of two years.

If sleep is needed, I give medicine separately once or twice daily as in the following formula for a child of one year :

℞ Liq. opii. compositi (Squibb's) . . gr. xij.
Potassi bromidi ʒj.
Syr. rubi idæi (raspberry) . . . ʒss.
Aquæ ʒi ss. M.

SIG.—Dose, one teaspoonful.

If there be marked dyspnœa, and urgent need that the mucus be expectorated from the tubes which it is obstructing, I think that the effect is better if the dose be ad-

ministered every half hour instead of every second or third hour. Half-hourly doses are not inconveniently given if the vehicle be milk.

The muriate of ammonium may, like the carbonate, be administered in milk, but the following is with me a favorite formula :

℞ Ammonii muriat. ʒj.
Syr. bal. tolut. ʒi j. M.

Fifteen drops, which contain one grain of the muriate, should be given to an infant of three months, and thirty drops, or two grains, to an infant of six months.

Much harm may, however, be done by employing quinine in the treatment of infants, by the use of doses too large. In the adult, according to the sphygmographic observations of Dr. M. Putnam Jacobi, while quinia in a dose of five grains increases the strength of the heart's contraction, a dose of twenty grains enfeebles the contractile power of the heart in a marked degree. According to Stillé and Maisch, "poisonous doses occasion dyspnœa and noisy respiration, which is also jerking, interrupted, retarded, and finally arrested" ("National Dispensatory"). A dose too large, therefore, would be likely to produce just such symptoms as occur in severe broncho-pneumonia. To an infant aged one year, with this disease, I do not give a larger dose than one half grain to one grain of the sulphate of quinia, every fourth hour, as in the following formula :

℞ Quiniæ sulphat. gr. xij.
Ext. glycyrrhiz. ʒss.
Syr. pruni Virginiani . . . ʒi j.—Misce.

Quinia, however, administered to an infant is very likely to cause vomiting from its bitterness, a result which I do not regret in the treatment of capillary bronchitis, because it causes the expectoration of considerable mucus. The second or repeated dose is usually not vomited. It is difficult to appreciate the beneficial effects of quinine in this disease, but that it does increase the contractile power of the heart seems probable.

After observing their effects for many years, I have found no better mode of external treatment for infants under the age of two years, and for all weakly infants whatever their age, than the application of a flaxseed poultice properly prepared. But instruction should be given in the preparation and application of the poultice with all the details which Abernethy was wont to

give to his class. A poultice which, in a few hours after its application, lies in a mass upon the epigastrium with the chest bare, does more harm than good. The poultice should be of uniform thickness, of about a line, between two thicknesses of linen, or thin muslin, and so moist that it wets the hands in holding it. For infants under the age of six months, camphorated oil should be thickly smeared on its under surface; for those between the ages of six and eighteen months, instead of the camphorated oil the flaxseed should be mixed with one twentieth its weight of pulverized mustard, and for those above the age of eighteen months the mustard should be one sixteenth part. In all those cases in which the respiration is not only hurried, but painful, and accompanied by a moan, and in which the cough is painful, the whole chest should be covered by two poultices, as thin as mentioned above, one over the anterior and the other over the posterior surface, fastened together over the shoulders, and under the arms by small safety-pins, and covered externally by a snugly fitting oil-silk jacket. The poultices thus made should be reapplied morning and evening.

If the patient begins to convalesce, the application to the chest, whether water or the poultice, can soon be omitted, and bathing covered with oil-silk be substituted for it.—*Med. News*, March 13, 1886.

Little (J. F.) on Ménière's Disease Treated by the Compressed Air-Bath.

—The patient, a professional man, suffered from syphilis before marriage. Since his marriage he had had several children, all of whom were free from specific taint. Ménière's disease was diagnosed by a London aural surgeon in the spring of 1885, and anti-syphilitic remedies were ordered. Last autumn, deafness had much increased. The general health was very indifferent, and the spirits greatly depressed. The compressed air-bath, at one and a half atmospheres, was tried, with immediate improvement. After two baths, the hearing had greatly improved, and the general health was better. An interval of six weeks had occurred without any return of the symptoms of Ménière's disease. The patient was now taking iodide of sodium. — *Brit. Med. Jour.*, Feb. 27, 1886.

Douty (J. H.) on Prolonged Rigor in an Epileptic.—H. B.—, aged seventy-five; epileptic since an apoplexy two years

and a half ago; dementia. I was called the other day to see this patient, who was said to be in a rigor. The following note describes briefly the symptoms which presented themselves: She was shivering from head to foot, like one who was in the early stage of an acute febrile illness; her teeth chattered violently; the skin was pale and in a state of "cutis anserina"; her face wore an expression of distress and anxiety; she groaned at times and complained of violent pain "down the back," and said now and then in a stammering way, "Oh, so cold, so cold!" It was impossible to count her pulse or hear her heart-sounds. Respirations were 36. As each breath was drawn the shivering became more violent up to the end of inspiration; the inspiration was noisy, and ended prematurely with a jerky closure of the vocal cords; during each expiration there was a slight but distinct quieting down of the convulsions. The temperature, taken carefully in the axilla, was 98.4°. She was as conscious as she ever is, and, though in a slow stammering way, answered one's questions pretty well. The rigor went on without intermission, the spasmodic muscular contractions which constituted the shivering becoming gradually more severe, and the skin colder and of a blue tint. Twenty-five minutes from the onset of the rigor the patient became unconscious, and a violent epileptic "fit" occurred, the tonic stage of which was absent; a comatose condition followed, lasting for twenty minutes, after which the patient resumed her usual state, though of course she was much prostrated. The temperature throughout was at the normal.

Remarks.—Amongst the almost innumerable phenomena which usher in epileptic seizures, an aura such as this, presenting all the subjective and objective symptoms (excepting pyrexia) of an ordinary rigor would seem to be rare. In this case the stage of "contraction of the facial," which usually precedes that of the "cerebral vessels," seems to have been exaggerated; the spasm spread over the whole cutaneous vascular system, and hence the subjective "cold" and the complete rigor. It was interesting to note that the tonic stage of the fit was absent; probably the muscles were too much exhausted by the twenty-five minutes' duration of the rigor to develop any strong tonic spasm. The "fit," however, was

distinctly separable from the rigor, the patient suddenly becoming unconscious, and the spasms of the rigor developing into clonic convulsions of a very severe type. The case is of some interest, too, when viewed in the light of a further testimony to the close pathological analogy between the two phenomena ordinarily distinguished by the names "rigor" and "convulsion."—*Lancet*, March 20, 1886.

Smith (S. W.) on Diphtheria and its Treatment.—Mortality reports establish the fact that diphtheria ranks among the most fatal diseases known to medical science as is shown by the following statistics kindly furnished me by Dr. John T. Nagle, Deputy Register of Records in the Health Department of New York City:

Year.	Cases reported.	Deaths.	Per cent.
1880 . . .	3,307	1,390	42.032
1881 . . .	5,272	2,249	42.659
1882 . . .	3,507	1,525	43.484
1883 . . .	2,906	1,009	34.377
1884 . . .	2,201	1,090	49.477

An average of 42.405 per cent.

Confronted by this alarming rate of fatality, I determined at the outset of my contact with diphtheria to scrupulously avoid vacillating or experimenting with different forms of treating the disease, but firmly adhere to the one form in which I had the fullest confidence. I consider that the results from at least twenty or thirty cases treated were necessary before any intelligent judgment could be reached—before the plan adopted should be pronounced a failure. Therefore, when I assumed the duties of visiting physician of the south district of Demilt Dispensary, I decided to observe the very spirit and letter of Dr. Billington's plan of treatment. This means something more than an occasional spray of carbolic acid and lime-water, with semi-occasional injection into the nostrils and throat of a spoonful of the salt-water solution. It means more than this, if it means any thing. It means that the parts affected must be thoroughly cleansed with the syringe, using in some cases a pint of the salt-water solution for each sitting, and at intervals not exceeding two hours, and using the atomizer every half hour. Herein lies the success of this plan of treatment, as without a judicious thoroughness in applying the syringe the throat becomes filled with the gangrenous discharge, and the nasal passage completely blocked; so that respiration is carried on through the mouth. In this suffering con-

dition I have frequently found the patient on my first visit; a condition pre-eminently favorable for absorbing the poisonous discharge. Then allow no time to be lost in preventing or stopping such absorption, or the gravest consequences will ensue. I use a common hard-rubber ear syringe, with the tip of the nozzle cut off for cleansing the throat and nostrile.

The formulæ used are as follows:

I.—R Sodium chlorid. 3 j.
Sodæ biborat. 3 j.—3 ij.
Aquæ ferv. O j.

M. et Sig.—Use with a syringe into the nose and throat every two hours, lukewarm.

II.—R Acid. carbol. gtt. x.
Aquæ calcis 3 iv.

M. et Sig.—Use with a hand atomizer in the nose and throat every half hour.

III.—R Tr. ferri chloridi . . . 3 j.
Glycerine 3 ss.
Aquæ 3 jss.

M. et Sig.—Dose: a teaspoonful every hour.

IV.—R Potass. chlorat. 3 ss.—3 ij.
Glycerine 3 ss.
Aquæ calcis 3 ijss.

M. et Sig.—Dose: a teaspoonful every hour, alternated with No. III.

When an unirritating astringent is deemed advisable, I add to No. I. formula tr. kino, 3 ss.—3 j.

Since treating the following cases, I have used with the atomizer, instead of No. II. formula, the following formula, and am well pleased with it:

R Listrine 3 vj.
Glycerine 3 ij.
Aquæ rosæ q. s. ft. 3 iv.

M. et Sig.—Use with the hand atomizer instead of No. II.

Of thirty cases treated in this way, five died, giving a mortality of 16.6 %.

In not a single case did I deem it necessary, neither did I give one drop of alcoholic or other so-called stimulants, nor one grain of quinine or other so-called antipyretics. In each and every case I adhere to a strictly milk diet until convalescence was well established.—*N. Y. Med. Record*, March 27, 1886.

Spender (J. K.) on the Early Treatment of Rheumatoid Arthritis.—The therapeutics of rheumatoid arthritis is encouraging if we rightly estimate the proportion of general and local treatment, if the social and hygienic surroundings of a patient be favorable, and if we can secure the help of intelligent relatives and sensible nurses.

Local treatment I put without hesitation in the foreground. By this is meant, not that in the long run the local treatment is the more important, but that we ought to begin with it, because time is urgent, and because in this manner we can make the earliest and deepest impression. But the laws and limits of counter-irritation must be stringently observed. To put a cantharides blister all over a joint, or to paint the whole exterior of a joint with liniment of iodine, is to commit a grave therapeutic blunder. Paint a ring of linimentum iodi around the lower part of a thigh, two fingers' breadth away from a threatening "rheumatoid" knee; let the ring be one inch and a half wide; renew it every two or three days, according to the coarseness or delicacy of the skin. Paint a similar ring below the knee, renewing it, not at the same time, but alternately with the ring above. If a cantharides blister be applied, let it be always on the cardiac side of a joint; and the blistered surface should be allowed to heal immediately. Another excellent method of counter-irritation is the frequent sponging of the affected joints in the earliest stage with water as hot as can be borne, the calorific edge of the heat being blunted by covering a joint with flannel or layers of muslin.

Many are the fine degrees and finer shades of what we call counter-irritation, and the method of using it should be always of the slow and quiet kind. Turpentine and its congeners are incendiary drugs, kindling a rapid fire which can be seldom kept within modest bounds. But there is a more generalized and tranquil method of so-called counter-irritation, which consists of immersing the whole body in hot or tepid water.

Douching and shampooing are therapeutic kinsfolk to bathing, and (as a rule) all should go together. "Wet douching" is preferable when joints are sensitive and muscular action is attended by labor and pain. But for rousing structures out of drowsiness, and for stimulating them when afflicted with vital apathy, few agents are so useful as "dry" hot and warm douches (the body being out of water). Internal medicines capable of doing good may be divided into two classes: (a) Those of unquestioned efficacy, because of their obvious physiological appropriateness; and (b) those of secondary utility, but helpful according to their mode and measure of

administration. In the front rank of the first-class stands cod-liver oil, food and physic together; if begun in small quantities with pancreatine or orange wine, it may be pushed discreetly until half a pint is consumed every week. This must be continued for months, perhaps for years, omitting the middle of the summer; and it is a merciful plan to allow a holiday from all drugs once a fortnight. Citrate of iron (five or six grains) and iodide of sodium (two or three grains) may be dissolved and given together in chloroform-water once a day. Among our pharmaceutical resources of lesser importance are strychnia, arsenic, and syrup of the iodide of iron. When arsenic agrees, it may rise to the dignity of a valuable medicine, and there is no reason why it may not be given with the iron and cod-liver oil. Syrup of iodide of iron has been extolled by several writers, and is certainly a model of quiet harmlessness.

Countless hygienic rules may be laid down, and it will be a happy chance if our patient obeys half of them. Rooms well ventilated night and day; the steady morning and afternoon trudge out of doors, to keep muscles and joints from stagnation, and to promote the "metabolism" of effete stuff from the body; plenty of sun and sea; clothing adapted to the ever-shifting stress of weather; and meals of varied and well-cooked food. And if the mind and the affections be rightly guided what more can we do? In short, what we call the prophylaxis of cerebral and pulmonary consumption is the most rational way of warding off the diathetic state which leads to rheumatoid arthritis. The victories of preventive medicines have only begun to be unfolded. When the hands and feet are the members first attacked, and the fingers are early disabled by pain and swelling in the smaller joints, the regular application of galvanic electricity may be tried. I cannot say much in its praise, and the therapeutic uncertainty of electricity has now become almost a proverb. —*Lancet*, March 13, 1886.

Strübing on Herpe Zoster and Paralysis of Motor Nerves.—In the *Deut. Arch. f. clin. Med.*, xxxvii. Hft. 6, the author reports seven cases in which herpes zoster accompanied facial paralysis. In five cases the zoster appeared first, and in two cases the paralysis was primary. Catching cold was generally the cause. Similar

to reflex paralysis the author considers zoster due in every case to an affection of the trigeminus.

When the rheumatic process attacks the fifth or the facial nerves there ensues a herpes or a paralysis or a combination of the two conditions, which depends upon the implication of the anastomotic fibres connecting the two nerves.—*Cent. f. klin. Med.*, 27th Feb., 1886.

Mills (C. K.) on Diagnosis of Spinal Tumors.—*Spinal tumors* are of constitutional or special origin, as of syphilis, cancer, tuberculosis, etc. Onset is gradual and irregular. Duration is comparatively long. Progress is gradual, by irregular advances, toward a fatal termination. Symptoms are inclined to be irregular, *i. e.*, unilateral or local; later, bilateral. Special symptoms, as paralysis, spasm, sensory and visceral disorders, are irregular as to time. Decubitus and trophic changes are common, late. Reactions of degeneration are often present.

In *spinal congestion*, constitutional cause not present. Onset is usually sudden, and after exposure. Duration is short, from a few days to four months. Disease is at first stationary, then retrogression of symptoms toward recovery occurs. Symptoms are more uniformly bilateral; motor and other symptoms develop about same time. Decubitus is rare. Reactions of degeneration are rare.

In *spinal hemorrhages*, there is no special history, or a history of cardiac or vascular degeneration. Onset is sudden. Progress is more regular. The first symptoms persist, and secondary degenerations follow, and differ according to extent and location of lesion, but are more likely to be uniformly bilateral.

In *meningitis*, the symptoms of localized compression are absent. The girdle symptom is absent. The affection is sometimes curable. Reactions of degeneration are absent.

In *caries*, deformity is rarely absent. Rigidity of the muscles of the back is a very important symptom.

In *traumatism*, there is usually a history. The symptoms are those of caries, myelitis, meningitis, or combinations of these, according to character of the case.

In *sclerosis*, the symptoms are usually of progressive systematic affections. Compression symptoms are absent. Duration is longer. Progress is gradual and more regular.

Aneurisms are only to be distinguished when extra-spinal, causing erosion and compression.

In *neuritis*, irregular sensory, motor, and reflex disturbances are present, compression symptoms and visceral disorders being absent. It is curable.

In *metallic and infectious disorders*, a history of definite causation is present. In metallic disorders there may be special characteristic signs, such as lead line, etc.

In *hysteria* a precedent hysterical history is usual. Onset is often sudden. An emotional element is present. The symptoms are bilateral. Trophic changes are absent. No reactions of degeneration are present.—*The Polyclinic*, March 15, 1886.

PATHOLOGY.

Lancereaux on Syphilis following Catheterization of the Eustachian Tube.

—A strong man of 58 entered the hospital Jan. 18th with an eruption which dated back a month. It covered the trunk, limbs, and part of the head, and was papulo-pustular in character. There was also some glandular enlargement and induration. The patient had no fever and was in good general health. He denied ever having had a chancre or ever being exposed. There were no traces of disease on the genital organs. His wife was healthy.

Being deaf, he had consulted a specialist, who, on two occasions, had passed a Eustachian catheter, Sept. 13th and Nov. 15th. The last catheterization was followed by nose-bleed.

The author thinks that infection took place at the time of the first catheterization and that a chancre had formed by the time the second operation was performed.—*Gaz. des Hôp.*, Feb. 27, 1886.

Cluton (H. H.) on Symmetrical Synovitis of the Knee in Hereditary Syphilis.

—The average age of the patients was about thirteen, but they were mostly between the ages of eight and fifteen. The predominant features of the disease were the symmetry of the affection, the freedom from pain, the long duration of the symptoms, and the free mobility of the joints on passive movement throughout the course of the disease. Its symmetrical character first led me to look for a constitutional cause, and there was no difficulty

in seeing that the patients were the subjects of hereditary syphilis. I have never seen both knee-joints fill with fluid, causing scarcely any pain or discomfort, whilst other joints remain quite free from any signs of inflammation, except in cases where there was distinct evidence, either past or present, of hereditary syphilis. The patient generally complains of stiffness in one knee, which is then found full of fluid, but not tense; on careful examination the other knee is also found to contain fluid, but not to the same extent as the one for which advice is sought. So that it is fair to assume that the knee to which attention has been directed by the patient has been affected some little time before he has felt any inconvenience. In a few instances there has been an interval of some months before the second knee has given the ordinary signs of synovitis; and in one case, which was that of the patient aged twenty, there was an interval of two years. All the other joints have been at the same time carefully examined, to make sure that such an insidious chronic synovitis has not been overlooked, but no joint affection could at any time be discovered elsewhere; nor was there any history pointing in that direction in any of the cases which are here recorded. The swelling in some of the cases was accompanied by considerable thickening of the synovial membrane; and in one instance recorded by Mr. Nettleship, the observation is made that in some places it gave the "impression of loose bodies in the joint." But in the greater number this swollen condition was not so noticeable a feature as in the synovitis which may occur as one of the later manifestations of the acquired disease. The chief part of the swelling in the cases now under consideration seemed to be produced by an increased quantity of synovial fluid. The joints were never tense, but gave a sensation of flaccid fluctuation, as if they were only half full of fluid. The bones in the immediate neighborhood were not enlarged, and in only a small proportion of the cases was there any articular tenderness. Nodes were occasionally found, but generally some little time after the onset of the swollen joint and at some little distance from the affected articulation. The peculiarly chronic nature of the synovitis is shown by the fact that in all the cases the swelling remained with scarcely any change for from three to twelve months.

Local treatment had no effect; but perfect recovery of the joints took place during the administration of antisyphilitic remedies.

Of eleven cases, active keratitis was present in nine, and in one other the corneal bore traces of a former attack. Five had the central incisors marked in the manner characteristic of the disease. Four had nodes on the tibiae, and two had recently become absolutely deaf.—*Lancet*, Feb. 27, 1886.

Baylor (R. H.) on Deformed Penis.—

The deformity described occurred in an infant. The root of the penis was attached firmly to the ossa pubis, but the body of penis could not be seen, so deeply buried under a continuation of the abdominal skin and muscles. The scrotum was not divided into two lateral halves by the raphe, but the scrotum resembled a large bag and was sinuous. After examining the scrotum carefully, the two testes were found and between them the penis could be distinctly felt. The glans-penis made its exit about the middle of the scrotum between the testes. The glans-penis had its usual appearance and was covered with the prepuce, and at the apex the meatus urinatus was seen. The child passed water freely while I was making the examination. An operation will relieve the deformation.—*Va. Med. Monthly*, March, 1886.

Carver on a Salivary Calculus of Unusually Large Size.—The specimen had been removed from a man aged seventy. It formed a swelling in the floor of the mouth to the right of the middle line, and just behind the sublingual gland, and when explored with a needle was found to be of stony hardness. It was easily removed with scissors. The patient had only noticed some tenderness there for about five or six weeks. There was no enlargement of any of the salivary glands or other symptoms. The stone was ovoid in shape, pointed at both ends, and of a pale yellowish-white color. It weighed 141½ grs., and measured 1½ in. by ¾ in. broad, with a circumference of 2½ in. to 3 in. Mr. Carver remarked upon the large size of the calculus, it being one of the largest ever recorded. These calculi were not uncommonly found in the ducts of the sublingual and submaxillary glands, but were rare in Steno's duct. The severity of the symptoms was by no means commensurate with the size of the calculus, in many cases

great swelling of the glands and surrounding irritation being caused by a very small concretion.—*Lancet*, March 13, 1886.

Davidson (M.) on a Case of Duodenal Perforation.—Albert K—, æt. forty, a farmer, unmarried, of regular and temperate habits, had for years complained of what was termed dyspepsia, and consulted many physicians without permanent benefit. At times he would be free from stomach troubles, again without any known cause his disease would return. Was nearly always able to work, but suffered frequently from pain in the stomach, from three to five hours after meals. He was then obliged to eat something, which generally relieved the distress.

About 6 P.M., December 5, 1885, was suddenly and violently attacked with intense pain about the region of the stomach. I saw him within half an hour, and found him unable to sit or stand still, and groaning loudly from the intensity of the pain, which now radiated without intermission in every direction from the stomach. Pulse and temperature normal; no tenderness; pressure well borne; no vomiting. Applied hot fomentations, sinapisms, turpentine, etc., and administered one-quarter grain of morphia every fifteen minutes for two hours, without relief. Continued the morphia in less frequent doses, and gave chloroform by inhalation during the remainder of the night. Suspected perforating ulcer of stomach. December 6th, pain less violent; pulse and temperature normal; tongue slightly coated; no appetite; continued morphia and fomentations. About 7 P.M. had a chill, followed by all the symptoms of extensive peritonitis, pain more general, and very intense. Again administered chloroform, and added tr. aconit. rad. in ℥ii. doses. Confined patient to liquid nourishment.

Dec. 7th.—Pulse 120; temperature 103°. All the symptoms of acute general peritonitis. Gave morphia in large and frequent doses.

Dec. 8th.—Pulse irregular and rapid; temperature 100°; delirium; cold perspiration; extreme prostration; condition of partial collapse; stimulants by skin and stomach *ad lib*.

Dec. 9th.—Collapse not quite so great; pulse weak, irregular, and fluttering; faintness, perspiration, temperature 100°; gave morphia and tr. digitalis, with milk and whiskey *ad lib*.

Dec. 10th.—Slight improvement in heart's action; tympanitis abating; pain not so severe; took more liquid nourishment, with stimulants; slight jaundice beginning to appear in conjunctiva and skin.

Dec. 12th.—Gradual improvement in all the symptoms; tympanitis nearly gone; some fluctuation from serum; bowels moved for the first time since attack. First motions feculent, followed by very large quantities of dark blood of tarry consistence and color.

Dec. 15th.—Still slowly improving; dark blood continued passing frequently till today, when fresh blood appeared in moderate quantity; trouble with hiccough; appetite improving; dietary confined as far as possible to liquids, although some solid food was given by the friends at times; continued morphia and digitalis in less frequent doses; kidneys acting well; urine healthy; moderate fluctuation.

Dec. 20th.—Temperature 99°; pulse 80 to 100; tongue clean; tenderness of abdomen nearly gone; gaining strength; takes plenty of liquid nourishment; fluctuation not so apparent; some hardness felt in abdomen on pressure, especially marked about the region of the bladder; passed catheter, hardness remains.

Dec. 25th.—Continued to improve till this evening; had a slight chill; pulse and temperature elevated; more pain; depression; symptoms continued to grow gradually worse till 1 A.M., December 31st, when he died.

Post mortem—seventeen hours after death. Assisted by Drs. Campbell of Florence, Pickard of Thamesville, and Mr. Charters, a medical student. Peritoneum dark-red, thickened, with many adhesions. Omentum dark-red, attached to abdominal walls, intestines, etc., in many places. Intestines bound together by many bands and adhesions. Briefly, we found all the evidences of past universal peritonitis. Small quantity of serum mixed with pus in abdomen, and large quantities of pus scattered throughout the interstices of the intestines. Stomach and duodenum empty. No ulceration of stomach proper, so far as could be seen by a moderately careful examination. Duodenum perforated on its right anterior aspect about one inch below the pyloric orifice; opening about the size of a ten-cent piece, first finger would slip through quite easily. Walls of duodenum thinned for an inch or more surrounding

perforation, and darkened by pigmentary deposit. About three inches of that portion of the liver adjacent to duodenum was a dark red color and softened by inflammation; rest of liver healthy. The other abdominal viscera were apparently in a healthy condition.—*Canada Lancet*, April, 1886.

Lockwood on Typhoid Fever—Death Eight Months after from Ulcers of the Intestines and Diseased Kidneys.—Ellen C., æt. twenty-two, was admitted into the Sheffield Public Hospital on Oct. 22d, 1885, under the care of Dr. Thomas, to whom I am indebted for permission to relate the following notes of the above case:

On admittance she said that she had been in the infirmary six months ago with typhoid fever, and Mr. Kilham has kindly furnished me with the particulars of her illness there, together with the temperature chart.

"Was admitted into the Union Infirmary on May 20th, very anæmic, not much purging during the first few days, but afterwards had five or six motions per diem, of the usual typhoid character. About the end of June she had severe pain in the lower part of the abdomen, swelling and some hardness and some dulness over the left ovary and broad ligament, very tender on pressure, and due (Mr. Kilham thought) to inflammation of the above structures. With opiates and fomentations the pain and swelling subsided in a few days. There did not seem to be any tumor internally, but she was not examined per vaginam. After all her pain and diarrhœa had disappeared, she was kept in bed for a good month, because her temperature was high. She said that she felt all right and wanted to get up. On July 25th she was put on the citrate of iron and quinine, and became stronger every day, and was discharged at her own request Sept. 13th, after four months' residence. Her temperature was invariably high at night. She had not been unwell whilst an in-patient and had no cough."

She was thus admitted under Dr. Thomas one month after leaving the workhouse infirmary, having tried to resume her work but failed, and the old pain returned in the abdomen, she lost flesh and had constant diarrhœa, with sickness and pain in the back.

On admission, her condition was as fol-

lows:—Very pale and anæmic, much emaciated, diarrhœa, abdomen tympanitic all over, with great tenderness over both iliac regions, and a swelling in the left one and gurgling in the right, the case was diagnosed as either relapse of the typhoid with peritonitis, or else tubercular peritonitis, but she had no lung sickness.

During the whole of her stay in the hospital her symptoms remained fairly consistent. She lost flesh, had diarrhœa of an intermittent character, the stools at times stained with blood, vomiting especially during the latter part of her life. She sank gradually and died on Dec. 28th, two months after her admission, and eight months from the commencement of her illness. She was examined per vaginam, and the uterus was found to be firmly fixed, hot and tender to the touch. There was albumen in the urine, but not to a large amount, and the heart and lungs were normal.

Post-mortem was made twenty-four hours after death. On opening the abdomen, the omentum was scanty, and the walls of the intestines extremely thin and almost through in one or two places. All the pelvic organs were firmly adherent, and could not be separated. The ovary had apparently undergone cystic degeneration, as had also the left one. On opening out the ileum, seven or eight ulcers were found, specimens of which are shown, extending from the cæcum up the ileum for about two feet, but there were none elsewhere.

Kidneys.—The left kidney was of great size and had the appearance of a large white kidney. The kidney was completely riddled with cysts, and its supra-renal capsule was of great size, very like the appearance of those bodies in Addison's disease. All the other structures were normal.—*The Med. Press and Circ.*, March 17, 1886.

Penny (E. J.) on Sudden Death from Hemorrhage Into the Abdominal Cavity During Menstruation.—

At 4 A.M. on November 11, 1885, I was summoned to R. E. T., aged twenty-seven, who was said to be very ill. Within ten minutes I arrived at the house, and found that life was extinct, with all the signs of collapse present. Her husband stated that she had always enjoyed good health, and was the mother of two children. She was perfectly well until about 7 on the previous evening, when she complained to him of pain in the region of the stomach, which she attributed to the fact that she was men-

struating at the time, and said she thought she would go to bed. She gradually grew worse, was extremely restless, complained of pain in her chest, and of difficulty of breathing; but refused to allow medical aid to be summoned, as she said she would be better in the morning.

Shortly before 4 A.M., her condition becoming more serious, my attendance was requested; but the patient had already died during her husband's short absence.

A necropsy was made on November 13th, by Mr. E. J. Parrott and myself. The body was well nourished. Rigor mortis was present. The surface was unusually blanched. There were well-marked blood-stains to be seen at the external genitals. The lungs were found to be healthy; the pleura was normal, and the pleural cavity contained its natural quantity of serum. The pericardium was natural, with the usual amount of fluid. The muscular tissue of the heart was healthy. The ventricles were contracted; there was a small clot of fibrin in the left ventricular cavity. The valves were healthy. After the thoracic viscera were removed, the diaphragm was seen to bulge upwards in an unusual manner, particularly on the right side. On opening the abdominal cavity, a large quantity of dark fluid blood immediately escaped, and the whole of the right side of the abdominal cavity was found to be full of fluid and semi-coagulated blood; while the right iliac fossa was occupied by a tolerably firm clot, of the size of a foetal head. The viscera were carefully removed and examined, and were found to be healthy, with no trace of lesion. The aorta and its principal branches were also minutely examined, and found to be everywhere healthy, nor could any lesion be discovered in the veins. On removing the large clot from the right iliac fossa, and tracing it onwards, it was found to lead to the right ovary; and a small but firm clot, at least an inch in length, was discovered attached to the outer surface of that organ. Two ruptured Graafian vesicles were also seen, to one of which an ovum was adherent; and, in the neighborhood of these, several small blood-vessels were found to be distended with clot, one of them being distinctly ruptured; and it was to this site that the clot above-mentioned was found to be adherent. The left ovary also showed signs of activity having taken place previously to death; and on its surface were seen small blood-

vessels filled with clot, whilst an ovum was also attached to it. The uterus, which was not removed, appeared to be normal.—*Br. Med. Jour.*, March 20, 1886.

SURGERY.

Guermonfrez (Fr.) on Clearing out a Supra-Diaphragmatic Focus of Gangrene.—A man of twenty-seven had suffered, for a month, from cough and dyspnoea without expectoration, all the while losing flesh and strength. All this time there appeared an abscess on a level with the ninth and tenth rib, at the border of the latissimus dorsi muscle.

A month later, night sweats and a persistent diarrhoea set in. The dyspnoea was painful, the cough labored, the expectoration abundant and fetid. On aspiration of the fluctuating tumor, brownish pus and a little blood were withdrawn. An incision was made through the ninth intercostal space, which seemed sclerosed and gave rise to no hemorrhage.

Three fingers were introduced and a putrid mass was withdrawn, which appeared to consist chiefly of false, pleuritic membranes, but in one fragment, by the aid of potash, elastic fibres were found.

The cavity was thoroughly washed out with a 5% solution of carbolic acid, drainage tubes were inserted, and a Lister dressing with iodoform was applied. Convalescence was rapid and uninterrupted.

The writer thinks there was a circumscribed pleurisy with superficial gangrene of the lung.—*Gaz. des hôp.*, March 16, 1886.

Bower (C. L.) on Depressed Fracture of the Zygomatic Arch, Causing Immobility of the Jaw.—M. F., aged thirty-six years, stepped on a long pole, which threw him down; the right side of his head struck the pole, producing a depressed fracture of the zygomatic arch. It caused considerable pain and swelling. On opening and shutting the mouth a kind of friction sound and rubbing sensation was noticed at the seat of injury. This gradually increased until it was with difficulty that he could close his mouth. While chewing a piece of meat he suddenly found it impossible to close his mouth, which remained open, with the teeth of the two jaws about one inch apart. He could, by an effort, separate the jaws a little further, but was incapable of bringing them

together. The deformity resembled a dislocation.

On examination, it was found that the zygoma was fractured a little posterior to the suture, and that the posterior fragment was greatly depressed, with either a decided bend or, perhaps, another fracture further back near the tubercle.

The coronoid process of the inferior maxilla was caught against the depressed fragment, which accounted for the fixation of the jaw.

As it was impossible to reach the depressed fragment, to elevate it, either externally or through the mouth, Dr. Levis made an incision of half an inch, just above the zygoma; then with an elevator, such as is used for elevating depressed fractures of the skull, he raised the depressed fragment into position, which immediately allowed the jaw to close easily.—*Polyclinic*, March 15, 1886.

McBurney (Chas.) on Orbital Aneurism.—A young man gave the history that about one year ago there was nothing noticeable about the eye except a very small swelling which did not give him any special inconvenience. Last spring he received a very severe blow from a base-ball, and from that time the swelling had increased, and recently he had a fall and struck in this region, and he thinks that it increased more rapidly since that accident.

There is a general pulsating tumor involving the tissues about the eye, especially the upper lid and brow. The larger vessels can be felt pulsating distinctly. A careful compression of carotid artery cuts off all pulsation. The retinal vessels, as well as the external, were convoluted and also pulsating. Vision was apparently normal. A distinct bruit could be heard over the mass. There was also a distinct protrusion of the eyeball.—*Med. News*, March 27, 1886.

Wharton (H. R.) on Cases Illustrating the Treatment of Contusions of the Larger Arteries.—As regards the treatment of contusions of the arteries, the indications are, generally, quite clear: in ordinary contusions, the injured part should be placed at rest, and the temperature of the parts below the seat of injury, if their blood supply be found deficient, should be maintained by the application of external heat, to favor as much as possible the rapid establishment of the collateral circulation.

Inflammatory lesions at the seat of injury can be treated by the application of evaporating lotions, and under this plan of treatment recovery may occur, with either complete or partial obliteration of the artery at the seat of injury, if the collateral circulation, both arterial and venous, is satisfactorily established.

If a traumatic or consecutive aneurism form, either ligature of the vessel above and below the seat of the arterial lesion, or amputation, will be required.

Gangrene coming on primarily or secondarily, if it involves the limb only, will require amputation. Whether this operation should be performed at once, or whether we should wait for the formation of the line of demarcation and separation, will depend upon the rapidity of its spread and the constitutional condition of the patient.

One case reported in this paper presents some unusual complications, the treatment of which is not generally laid down; in this case, the contused artery containing a thrombus was exposed to view in the lacerated wound, and without the application of ligatures secondary hemorrhage would seem almost to have been invited, while the satisfactory establishment of the collateral circulation showed that the occlusion of the artery itself was not attended with risk or gangrene, which condition evidently resulted from secondary venous implication.—*Med. News*, March 27, 1886.

Eales (G. Y.) on a Case of Rupture of the Kidney.—The following interesting case is, I think, on account of its comparative rarity worthy of record.

On April 10, 1885, a collier, aged thirteen, was severely injured by a fall of coal while at work in one of the company's pits. I found him lying on his back with the shoulders raised, thighs flexed (especially the right one), face pale and of anxious appearance, surface cold and bathed in sweat, pulse rapid and feeble, and respiration shallow and of intercostal type, there being but slight diaphragmatic movement. A deep breath caused intense pain in the right lumbar region. He had vomited several times, and was, in fact, in a state of collapse. On examination I found an extensive contusion in the right lumbar region, and slight abrasion of skin over the eleventh and twelfth ribs. The patient complained of such intense pain on pressure that I was unable to ascertain if

any ribs were fractured. There was also a slight contusion on the right shoulder, another in the hypogastrium, and another on the posterior aspect of the right thigh. There was no tenderness on pressure in the hypogastrium. In the evening he passed a large quantity of bright arterial blood, mixed with urine, and vomited several times.

April 11th, 11:30 A.M.—Very weak and anæmic. Pulse hardly perceptible at the wrist. Had vomited constantly during the night, and had passed urine tinged with blood. Some fulness in the right iliac region, with dulness on percussion. Complained of great pain all over the right half of the abdomen, and tenderness on pressure.

12th.—Yesterday, about 9 P.M., he passed some urine slightly tinged with blood. To-day he has voided nothing from the bladder. There has been no vomiting. Complained of pain all over the abdomen. Thighs strongly flexed on abdomen, and abdominal walls rigid. Died in the night from a combination of anæmia and shock, having lived sixty hours since the accident.

Necropsy.—Body short for the age, and thin. The right side of the abdomen showed extensive bruising. On opening the abdomen we found a large quantity of blood in the peritoneal cavity. No injury to the diaphragm or liver and no fracture of any ribs could be detected. There was no apparent injury to the intestines, but portions of the ileum in the neighborhood of the kidney showed commencing peritonitis. The right kidney was displaced downwards and forwards, and lay in the iliac fossa; behind it was an enormous amount of blood-clots and effused blood, the latter extending along the cellular tissue almost to the middle line of the abdomen in front. There was also a quantity of blood-clots immediately in front of and on the right side of the lumbar vertebræ, overlying the solar plexus and semilunar ganglion; this had apparently spread along the renal plexus of vessels; it did not extend over to the left side of the vertebræ. The peritoneum anterior to the kidney was severely lacerated, and so allowed escape of blood into its cavity. The upper half of the kidney was literally smashed into a pulp, but more so on the the anterior surface than the posterior, extending down to the pelvis of the kidney.

There were several large branches of the renal artery laid open. We could detect no wound of the trunk artery or vein. There was also a small deep jagged wound in the lower half of the kidney on the posterior surface, which looked as if a rough object had been driven into it. The ureter appeared to be completely blocked by a blood-clot. Bladder empty and healthy; left kidney and ureter healthy. There was no evidence of the lower ribs having been driven through the abdominal walls.

The noteworthy feature of this case is how such an extensive injury to the kidney should have been caused without fracture of any ribs. The sudden cessation of hæmaturia was apparent duely to clots in the ureter. The rapidly increasing anæmia, together with the hæmaturia and fulness of the iliac region, pointed presumably to hemorrhage from the kidney; accordingly, astringents were given. Mr. H. A. Reeves, F.R.C.S., in a case published by him in the *Lancet* of Oct. 4, 1884, says that as soon as it is found that hemorrhage is not controllable after trial of every known means, a lumbar incision should be made over the kidney, and all clots and blood removed, and the kidney also, if necessary. It occurred to me, if it would have been justifiable to cut down and remove the kidney as soon as it became evident that hemorrhage was profuse, obviously in such cases to wait the effect of a lengthy trial of astringents means waiting till too late. I do not feel competent to give an opinion as to the actual cause of this injury; but remembering the fact that the boy was crushed beneath a great mass of coal, it occurred to me that the kidney may have been suddenly dislocated, as it were, by the force of the blow, and at the same time caught between the vertebræ and the suddenly compressed ribs; and what makes this idea more tenable is the fact that the boy was small and very thin for his age, and that the anterior portion of the kidney was the most severely damaged.—*Lancet*, March 13, 1886.

Cheatham (W. T.) on a Urinary Calculus Sloughing out through the Perineum.—April 10, 1879, a negro man brought me in a urinary calculus of phosphatic composition, weighing 3 i. and 3 ii., about the size and shape of a pullet's egg, the small end terminating in a neck-like extension, one fourth of an inch in diameter and one half an inch long. He

represented it as having fallen from his little step-son's privates while walking across the floor about two hours previously. I found a boy of eight years standing by the fire partaking of a frugal repast, manifestly little concerned about his condition. He was emaciated, cachectic, dwarfish. A portion of the perineum, the entire scrotum, and both testes had been swept away by the destructive inflammation and sloughing consequent upon the passage of the stone from the bladder to the outer world.

The penis had suffered almost entire destruction; its connections to the rami of the ossa pubis and ischia were nearly severed, being attached by a narrow strip of integument, the body of the organ for three fourths of its height being absent, and the prostate gland, with its urethral connections, sharing a similar fate. The index-finger was passed into the bladder through the opening made by the passage of the calculus; its mucous coating was thickened and morbidly sensitive, giving excruciating pain while passing the finger over the surface in search of concretions; none were found to exist, nature having rid that organ of its only specimen.

I was informed that he inherited the calculous diathesis, his father having died of gravel. His mother and step-father thought his trouble commenced when he was eighteen months old, as he suffered pain, and had a difficulty in passing his urine thenceforth until the passage of the stone.

The patient died the following summer of acute dysentery.—*North Car. Med. Jour.*, March, 1886.

Cami-Debat (P.). Contribution to the Study of Simple or Complicated Fractures of the Penis.—*Thèse de Paris*, 1885. Fracture of the penis is only a rupture of the fascia of the penis, accompanied by disintegration of the meshes of the cavernous tissues. It generally occurs during coition. The loss of substance of the cavernous tissue is followed by malposition of the organ. There remains on recovery a sort of ferrule like a callus at the point injured. The injury is generally benign. The treatment is chiefly directed to the accidents which sometimes happen—gangrene or infiltration of urine.—*Gaz. méd. de Paris*, Feb. 27, 1886.

Conkling (A. A.) on Fracture of the Penis.—I was called at midnight, November 1, 1885, in haste, to attend Mr.

W., a carpenter, aged thirty-five, weight 215 pounds. The messenger would give no idea of the trouble I had to contend with. On entering the house I noticed a serio-comic expression on the countenance of all, especially the wife. In a room adjacent lay the patient with a beautiful picture of despair on his face. I questioned his condition. The penis (*corpora cavernosa*) was fractured about midway in its length. In the upper and left two thirds there was a decided separation of continuity, with great extravasation of blood, which filled the skin to its utmost distension, with considerable discoloration.

I made a neat pasteboard splint, well padded, and applied it, turned the organ up against and a little to the left of the abdomen, held in place by a T bandage. There was but little pain, two slight attacks of priapism. The same treatment was continued. At the end of two months there was a hardened ridge at the seat of the fracture which gradually disappeared. At this time, March 1st, he says it is just as useful a member as there is in the family.—*Peoria Med. Mo.*, March, 1886.

Weir (R. F.) on the Treatment of Varicocele.—The author sums up in these concluding words: 1. That for small varicoceles there is nothing better than the single (or double) subcutaneous catgut ligature. 2. That for medium-sized varicoceles, or for cases declining a more heroic operation, excision in careful hands is to be advised. 3. That for large varicoceles, for relapsed cases, and for those not very large, but with a much elongated scrotum, ablation of the scrotum with ligation of the veins is preferable.—*N. Y. Med. Record*, March 20, 1886.

Matthews (J. M.) A Unique Rectal Case.—The patient was a woman aged sixty-two. Had complained of severe pain in the rectum for many months. Though increased during the act of defecation, the pain was continuous, and radiated down the thighs and up the back. It caused a disposition to urinate often, which act was attended with pain. A muco-purulent discharge was noticed with each action from the bowels. A constant feeling of uneasiness, described as a heavy weight in the rectum, was constantly felt. Some flesh had been lost in the twelvemonth. From this history, together with her age, malignant trouble was suspected. The following condition was found: Just within the

anus, encroaching upon the external sphincter muscle, inclined to the left side and extending to the dorsal aspect of the gut, was a well-defined tumor, *very hard*, painful to the touch, and slightly ulcerated. No other disease of the rectum existed, nor did this resemble any affection incident to this locality save cancer. One day in going to stool, she noticed a more sensitive condition of the parts than usual, and, as had been her custom, she inserted her finger into the rectum. Upon doing so it came in contact with a very sensitive and unusually hard point upon the surface of the tumor. As was natural, she pushed her investigation and was rewarded by finding that this one point was movable and at last succeeded in getting it out of the rectum, when to her great astonishment it proved to be a large molar tooth well-filled with gold. She then related that *fifteen* years prior to this time she had swallowed a tooth during the extraction of many by a dentist.—*Med. Herald*, March, 1886.

OBSTETRICS AND DISEASES OF WOMEN.

Harrington (F. B.) on Severe Hemorrhage from Ante-Partum Separation of the Placenta, with the Infusion of Sixty-six Ounces of Salt Solution.—The condition of the patient was extremely alarming. Only the flutter of a pulse could be felt in the wrist. The patient was inverted and the legs were bandaged from toes to hips. Subcutaneous injections of ether and whiskey were repeatedly given, but the patient, perfectly blanched and almost pulseless, began to gasp and to toss for breath. It was now forty-five minutes since the birth of the child and the patient was sinking. It was decided to try infusion. The right median cephalic vein was exposed and raised upon a director and a ligature was passed beneath it. A funnel and a connecting rubber tube and needle were filled with a solution of salt and water. The needle was tied into the vein. Thirty-six ounces of the salt solution¹ were poured into the vein in about twenty-five minutes. The

first few ounces brought the pulse back to the wrist, and the tossing and gasping ceased. Within twenty minutes a slight flush could be seen in the cheeks and the lips took on a little color. The pulse fell to 120 and was of fair strength. The patient was perfectly conscious and took stimulants by the mouth.

There was still no loss of blood and the uterus remained hard and small. The color in the cheeks did not remain long, but the patient was quiet and seemed to be resting easily. It was now an hour and a half since the birth of the child and the uterus had remained well contracted. All seemed to be going well, when suddenly the uterus was found to be enlarging. At the same time blood appeared trickling from the vagina. The uterus did not become larger than a cocoa-nut, but the hemorrhage was profuse. Fresh pledges of cotton with persulphate were crowded into the cervix. The vagina was very tightly packed. This was not done, however, until the uterus had returned to its small size below the symphysis pubis.

It perfectly controlled the hemorrhage. The sighing and alarm of the patient had returned. She was tossing from side to side. Enemas and subcutaneous injections were given. The heaters were renewed and placed about the patient. The pulse at the wrist was rapid in the extreme, and at times could not be felt. For three quarters of an hour every effort was made to improve the patient's condition, but she grew steadily weaker. The skin was cold and clammy. The pupils were widely dilated. The patient's mind wandered. Death was imminent. As a last resort it was decided to attempt a second infusion. The left median cephalic vein was this time opened. Thirty ounces of the salt solution were added to the circulation in forty minutes. Slowly the pulse appeared at the wrist. It then became constant, though rapid and feeble. The patient soon became quiet but was utterly exhausted. The pulse ranged between 150 and 160 and could only be accurately counted at the chest. Six hours later the pulse had fallen to 148, and was somewhat stronger. In twelve hours it dropped to 140. Here it remained for thirty six hours, when it fell to 130. On the three following days it ranged between 120 and 130.

February 12th. Nearly a week has

¹ Sod. chloride.

Sod. bicarb.

Aq. distillat.

3 iss.

grs. xv.

O ij. +

elapsed, and the patient is doing well. The prognosis is favorable.

February 13th. The patient had a chill and the temperature rose to 105°. She was seen by Dr. W. L. Richardson in consultation. He gave a favorable prognosis.—*Boston Med. and Surg. Jour.*, March 4, 1886.

Perry (T. K.) on Protracted Mechanical Labor and Subsequent Fatal Diphtheritic Inflammation of Parturient Canal.—Six days after a protracted instrumental delivery, without apparent cause or warning, the patient, a primipara of twenty-two, had a violent chill, which lasted five or ten minutes, and was followed by vomiting and prostration. I saw her about two hours afterwards and found reaction established: she still felt nauseated and complained of headache. Her temperature was 105°, tongue furred, urine scanty and slightly albuminous, bowels moderately open, no pain nor tenderness anywhere, and mental condition good. About three days after confinement I found the vulva enormously swollen and œdematous. Hot vaginal douches, with fomentations to labiæ, had been continued daily.

On the day of chill I found the parts less swollen, not tender to the touch, but of a rather dark or dusky appearance. I gave the patient at this time a mixture of quinine, whiskey, and morphine, but, as she could not retain it, substituted enemata of quinine, with mucilage of acacia, and gave one sixth grain morphine by mouth. No further chill nor vomiting, and general condition improved for next thirty-six hours. In the meantime, the lacteal secretion seemed fully established, and the child was quiet and thriving.

Was called at 3 A. M. on the third day, and learned that a most violent headache, with excessive diarrhœa, had been in existence for some hours. The pulse was about 120, temperature 105°, tongue moist, and mind clear. Ordered baby to be taken from breast and the secretion of milk restrained, while hot fomentations, douches, and morphine were continued.

The consulting physician, Dr. Franklin Townsend, diagnosed puerperal diphtheria, resting his diagnosis on two important points—the excessively ichorous and fetid nature of the discharge, and the involvement of lymphatic glands in the immediate vicinity.

Much as I discredited the diagnosis, the astuteness of my friend's observations were

made markedly manifest in the subsequent history of events.

Our patient died about midnight, October 5th, ten days after confinement, and on the following day I made no visit to the house. On the next, I was asked to see the child, and to my very great surprise I found the little one suffering from well-marked diphtheria. The umbilical region was one large patch of deposit, with an outlying, angry blush, several inches in diameter. The fauces and nares were involved, and the little sufferer died that night.

I was now fully aroused to the exigencies of the occasion, and at once took steps to quarantine the house and further protect its inmates. My knowledge had, however, come too late, and on October 9th I was called to see a young lady member of the household, who had been taken violently ill. The case proved one of typical diphtheria, and the amount of faucial deposit was, in the next twenty-four hours, very great. She recovered after a long and severe siege.

During her sickness the two remaining younger members of the family were both prostrated with the disease, though neither of them alarmingly so. This was the last of my trouble in that house, and no further deaths.—*Albany Med. Ann.*, Feb., 1886.

Beeson (H. A.) on Rupture of the Uterus Caused by a Previous Injury of the Womb, and Shortening of the Cord by Coils round the Neck of the Child, Causing Unavoidable Traction.—Mrs. C—, aged thirty years, two months before her confinement, had been accidentally struck by one of her older children with a cane, on the abdomen, since which she had been suffering with a "burning pain" at the point of injury. Pointing out the seat of the pain, she placed her hand over the fundus of the then enlarged uterus, to the right side.

In due time the labor came on, and was quite hurried, strong expulsive pains following each other rapidly, and when the head passed the vulva I found the cord wound round the child's neck in several coils, so many, in fact, that the neck space was filled up to the child's mouth and ears. It must have been four or five times around, possibly more, but I had no time to count. The cord was drawn so tightly that it was impossible to loosen it or to relieve the strain. The child was asphyxiated and apparently dead, therefrom, but

before I could cut the cord or do any thing, the final expulsive pain came on, and the body of the child seemed to be drawn upward by the tension, and somehow it was thrown feet forward by the violent pain.

I released the cord as quickly as possible, allowed a little hemorrhage from the funis before tying, and at the end of a half hour's hard work, had the satisfaction of resuscitating the child. On investigating the condition of the after-birth, could feel an edge of it lying low in the vagina, and on making traction thereon, found it to be adherent. The point of attachment of the cord was near the presenting part. Feeling along the placenta, it was found to be stretched down by the force of the expulsive contractions, and some rents could be felt in it, made by the drawing down of the shortened cord. The placenta was very soft, and easy to break down. On inserting the hand and feeling for the point of attachment, my fingers came in contact with what I thought was an hour-glass contraction. On placing my hand over the abdomen in apposition, to assist in overcoming the supposed contraction, I was shocked to find only the thin abdominal wall between the tips of my fingers and hand. The rent, large enough to admit three fingers, seemed to be nearly transversely to the anterior wall, near the border of the fundus, and some two inches to the right of the median line. The diagnosis was confirmed by a confrère and the placenta was removed by exerting considerable force. The uterus contracted firmly, but the patient suffered pain considerably, and there was an oozing hemorrhage and occasional strong indication of septic poison. She had at one time rigors and high temperature, nausea, thirst, and tenderness, and some tympanitis. However, in about two weeks, after some contractions, there came away a fetid mass, the nurse said "as large as a medium-sized orange." After this there was an occasional discharge of a purulent character for some days, but after the discharge of the mass above mentioned, the symptoms abated and the patient recovered.

From the first, I used antiseptic uterine douches from one to three times a day, using the usual precautions against the admission of air, etc. Also gave large doses of turpentine by the stomach, and kept the bowels free by enemata. Occasionally used opium, but not very often, and al-

ways per rectum. A similar case, with fatal result, is recorded in the Jan. No. of *Braithwaite's Retrospect* for 1881.—*The Obstet. Gazette*, March, 1886.

Murdock on Habitual Abortion in Connection with Disease of the Heart and Kidneys.—On February 9, 1886, Mrs. K—, aged forty-one, came into my office complaining of great weakness, and shortness of breath on making any exertion. She menstruated at fifteen, and has always been regular. She married at twenty, and had six living children at term, all healthy. Then followed four premature births, the foetus dying about the seventh month of pregnancy, and being expelled four weeks later. Next in order came a healthy living child at term, which was succeeded by five premature births of dead children at the eighth month of pregnancy, the last miscarriage occurring three months ago. Examination of the patient revealed a slight laceration of the cervix, a well-marked aortic systolic murmur, and the urine contained albumen (a quarter), and an abundance of granular and epithelial casts. There is no history of syphilis, and there is now no tenderness over the sternum or tibiæ, and no changes in the retinae can be detected.—*N. Y. Med. Record*, April 3, 1886.

Mundé (P. F.) on Ovariectomy during Acute or Chronic Peritonitis.—Although, in double ovariectomies done under such circumstances, he had had only fifty per cent. of successes, he had the satisfaction of knowing that one patient had recovered after the operation during chronic peritonitis, one after removal of suppurating dermoid cyst with lesion of the bladder and catgut suture, one after removal of a multilocular cyst weighing fifty pounds—all double ovariectomies; and one after partial excision of a huge cyst of the broad ligament, containing forty-eight pints of fluid. He had been actuated by the rule, very properly, as he thought, laid down by Dr. Goodell, never to refuse to operate in any case which offered the slightest chance for the recovery of the patient. As to the justifiability of immediate removal of an ovarian cyst during peritonitis, acute or chronic, as soon as the existence of the latter condition was discovered, there could probably be no question since the brilliant results of Keith, Freund, Veit, Tait, and many others in operations of this kind, some cases, apparently the most desperate;

having ended in recovery after removal of the ovarian cyst and drainage. The *treatment* of an ovarian cyst complicated by chronic peritonitis, whether the latter was due to aspiration or to rupture of the cyst, invariably was, laparotomy, removal of the cyst, and cleansing of the peritoneal cavity so far as possible, followed by drainage. There could be no doubt as to the justifiability of this practice; too many operators of the highest eminence had adopted it, and its success on the whole had warranted their action. But as to the treatment of effusion of the contents of the cyst into the peritoneal cavity, before presumably healthy, there was some difference of opinion. While the only correct treatment would seem to be the immediate careful removal of *all* the noxious material from the peritoneal cavity by sponging and irrigation, experience had seemed to show that drainage would, in the course of time, entirely and safely remove the ovarian fluid, and that no harm occurred by allowing this usually irritating matter to remain in prolonged contact with the peritoneum. In explanation of this apparent immunity, it should be noted that the peritoneum doubtless had, by chronic inflammation, become proof against fresh irritation. It was safer to leave the gradual elimination of the effused ovarian fluid (whether thick or thin) to the drainage tube than to attempt to remove it. —*N. Y. Med. Jour.*, March 27, 1886.

Tip of Paquelin Cautery Dropped into the Peritoneal Cavity.—Dr. Stone reported a case of a solid ovarian tumor in a lady, a Swede, thirty-three years of age, single, but had had one child; girth of abdomen, forty-three inches. The diagnosis of sarcomatous ovary with ascites was made. No ascitic, but ovarian fluid was found; from severalappings only a table-spoonful of fluid was obtained. A ten- or eleven-inch opening was made, almost from ensiform cartilage to pubes, the numerous stringy adhesions were separated, and the tumor removed; the hemorrhage was so immense that it was at first thought that the nephritic artery had been torn; the aorta was compressed and the bleeding stopped with the Paquelin cautery. In using the Paquelin he wished to give the warning always to get the genuine instrument, for, in this case, when nearly all the points had been touched, the shank suddenly unsoldered in the handle and dropped white hot into the abdominal cavity.

Very little time was lost in removing it, but the intestines were seared in several places, although not sufficiently to produce an eschar. The incision was closed, the temperature rose but two degrees, and the woman was discharged in three weeks.—*Northwestern Lancet*, April 1, 1886.

Aveling (Jas. H.) on Inversion of the Uterus.—Successfully Treated by the Sigmoid Repositor.—It was a case of obstinate chronic inversion which induced me to invent the sigmoid repositor. This case came under my care in 1878. I had, in 1868, invented sigmoid axis-traction forceps, ten years before those of Tarnier, which have the same form, and, remembering that the sigmoid shape of this forceps gave traction in the axis of the pelvic inlet, I came to the conclusion that axis-pushing in the same line might be effected by a repositor having the sigmoid form. With an instrument thus constructed, I felt I should be able to carry out Gooch's instructions, and press the uterus "in the direction of the upper axis of the pelvis," thereby rendering the reduction of an inverted uterus more easy and certain. My anticipations have been fulfilled in a most satisfactory and gratifying manner, for I have treated and cured ten cases of chronic inversion by my sigmoid repositor. Before relating these cases, it is due to Dr. R. Barnes to state that he was the first to apply elastic pressure by india-rubber bands to the stem of a repositor.

Having diagnosed inversion, determine by touch the size of the fundus, and select a cup of proportionate size; it should be in diameter slightly less than that of the fundus. Next apply the belt round the waist, and then the braces over the shoulders, and fasten them by the safety-pins to the belt. This should be done in such a way as to leave room to pass the tapes, to which the rings are attached, between the pin of the safety-pin and the belt. Now the cup of the repositor should be applied to the fundus uteri, and held firmly in position by an assistant while the rings are adjusted, two being taken in front and two behind. The ends of the tapes should next be passed between the safety-pins and the belt, some of the tape drawn through, and a knot made at its end to prevent it slipping back. Tension may be lastly exerted by drawing the tapes up through the pins, and fastening them at any point by tying a loop. This loop can be easily pulled

out and retied, should more or less tension be required. Care must be taken to have the tension equally distributed; for, if the front bands be tighter than the back, there arises the fear of the cup being slipped back off the fundus; and the opposite may occur if the posterior bands be tighter than the front. The india-rubber bands passing to the front should be carefully laid outside the labia, and packed with cotton-wool. If the patient be restless, or complain of pain, morphine may be administered. She should be carefully watched, and the urine should be drawn by catheter when necessary. It is difficult to lay down any rules for tightening and loosening the tapes. This must be determined by the practitioner, who must judge by the existing tension, and the tolerance of it by the patient. In my last case, reinversion was accomplished without the tapes being touched after their first adjustment.

When the inversion has been reduced, the sooner the cup is withdrawn the better, for the cervix immediately begins to close round the rod or stem, and the cup becomes firmly grasped in the uterine cavity. The best way of removing the little cup is to tilt it on end, and bring it through the os as you would a button through a button-hole. If it have been long retained, an anæsthetic will assist. It might be a good plan to have a hole made through the edge of the cup, through which a stout string might be passed, by which to make traction. Continuous elastic traction on this string would remove the most firmly-grasped cup with certainty. The stem might be previously unscrewed from the cup.

When the cup has been removed, pass a thick sound into the uterus; and, by pressing the point of it forward, the rounded fundus will be felt through the abdominal walls. Being satisfied that complete reinversion has taken place, syringe out the uterine cavity with iodine water at 120° Fahr., which will cleanse its surface and make the whole organ contract.—*Br. Med. Jour.*, March 12, 1886.

A Maternal Substitute.—A curious story reaches us from Toulouse of a laboring woman, who, during her work in the fields, was in the habit of leaving her baby in a shady corner, returning to give the child the breast as opportunity occurred. To protect the child from harm, the dog (a bitch) was left in charge. The mother

noticed after a time that the child no longer exhibited the same impatience for the breast as formerly, although its general condition was excellent, and its indifference could not be attributed to a failing appetite. One day, on returning to take charge of her offspring, she was astonished to see the dog standing tranquilly across the child and suckling it. The mother, who saw no objection to the proceeding, allowed the habit to continue and the child seemed to thrive on the milk of its novel nurse. The dog exhibited a truly maternal tenderness for the child, and as the child grew older this tenderness was heartily reciprocated.—*Med. Press and Circ.*, March 17, 1886.

DISEASES OF THE EAR.

Jones (M. D.) on Middle-Ear Disease, Complicated with Keratosis Obturans.—The patient, K. C., aged nineteen years, of robust appearance, stated that her right ear had been discharging for six or eight months unaccompanied by pain, and that she was driven to seek relief from motives of cleanliness.

An examination by us showed a polypus filling the meatus of the right side and protruding from the lips of the canal. A portion of the growth was removed with the snare under great difficulties, for the girl had become timid and began for the first time to complain of pain in the ear. Two days later, on removing another small portion of the polyp, we were astonished to find how much the tumor had increased in size. The following day the snare was carried down to the pedicle of the polyp and the mass removed entire. Beyond the place of attachment of the polyp, which was on the postero-inferior wall of the meatus at the junction of the cartilaginous with the osseous canal was found a plug of epithelium. The latter was extracted without a great deal of difficulty, and on its withdrawal from the canal, was followed by a gush of offensive pus. The walls of the meatus were macerated and bleached, and as we generally find in such cases, the canal was enlarged by the pressure made by the plug. The drumhead of that side was entirely gone. Patient stated that she had had suppurative trouble in both ears in early childhood.

A few days after the operation on the patient's right ear she began to complain

of discomfort in the left one. Inspection showed the meatus entirely filled with one of those plugs of laminated epithelium, termed by aurists, *keratosis obturans*. Only those who have had experience with these masses know how useless it is to attempt to remove them by means of syringing. They can only be gotten rid of by loosening the mass, piecemeal, with the curette, greatly to the discomfort of the patient and much weariness to the arm of the operator, before the job is finished. A freeing of the canal in this case showed the complete loss of the *Mt.* These epithelial masses are met with in ears where the drumhead is intact, but sooner or later the pressure on the *Mt.* leads either to suppuration or by forcing the membrane against the inner wall of the tympanum to adhesion. They are found larger and denser where a previous suppuration has destroyed the *Mt.*, allowing the mass to cause no discomfort, except increased hardness of hearing. The etiology of *keratosis obturans* is obscure. Vegetable spores are, at times, found in the laminæ, but Wreden does not ascribe the origin of the mass to the fungus. Burnett, in his work on the ear, thinks the disease may be set up through undue efforts of cleanliness. The meatus is bruised and then a slow exudation of dermoid cells takes place. As the mass grows, the more the irritation, and so fuel is added to the flame. —*St. Louis Cour. of Med.*, April, 1886.

Field (Geo. P.) on the Removal of Osseous Tumors from the Ear.—The author concludes: (1) that aural exostoses must not be considered as at all necessarily the outcome of gout, rheumatism, or syphilis; (2) that the origin can, with strong probability, be attributed, in many, if not in all cases, to some preceding local irritation; (3) that they can be safely and most effectually treated by drilling, when a suitable guard is employed to protect adjacent structures; (4) that their speedy removal is indicated wherever they hinder the elimination of secretions and discharges from the auditory canal, cause pain by pressure, or impair or prevent audition. —*Br. Med. Jour.*, Feb. 27, 1886.

Barr on a case of Exostosis Completely Closing the External Auditory Canal.—The man was aged forty-seven, a joiner, in whom the left internal auditory canal was completely occluded by a hard reddish globular mass, evidently springing from the posterior osseous wall of the canal.

The lumen of the canal was so completely filled by the tumor that a fine wire loop could not be passed between it and the wall of the canal at any part of its circumference. On the *right* side, while there was no exostosis, there were opacity, thickening and immobility of the tympanic membrane. The hearing power, as tested by the watch, speech, and tuning-fork was as follows: In both ears the tick of a watch which, in normal hearing, was perceived forty inches from the ear, was not heard even on pressure upon the auricles. The watch was heard, however, on both sides when applied to the temple—that is, by osseous conduction of sound. The whispered voice was understood only when close to the ear on the right side, but not at all in the left. The vibrating tuning-fork, when applied to the middle line of the head, was heard better, indeed almost exclusively, on the left—that is, the worse ear.

There was no trace of rheumatism or syphilis to throw light upon the causation of the disease. There was likewise no tendency to nasal or pharyngeal catarrh, and there had never at any time been a discharge from the ear. On the other hand, as a boy and a lad, he was very fond of bathing; and living, as he did, on the banks of a canal, he was in the water very frequently in favorable weather. However, two years ago he gave up bathing owing to the suspicion that it injured his ears.

There was also a disagreeable buzzing in the left ear. The deafness in the ear affected with the exostosis came on very suddenly, and was probably due to irritation of the ear at a time when the closure of the canal was almost but not quite complete. Slight swelling of the cutaneous lining of the growth probably then closed the chink which previously existed. Leeches and counter-irritation were employed with the object of removing the supposed cutaneous swelling but without result.

The writer was of the opinion that the dental drill engine would probably afford the most practicable and efficient method of operating. —*Glasgow Med. Jour.*, April, 1886.

Hutchinson (Jno.) on the Best Method of Removing Foreign Bodies from the Ear.—I have never, since I was a student, used either forceps or scoop; and, for the purpose of extracting hard bodies from the ear, I hold that they are most dangerous. With a flexible silver

wire loop, or, if need be, with two placed at right angles, I have repeatedly succeeded when all other means had failed. Thus, not only is the loop quite devoid of danger, but it is both more easy of use and far more efficient than any other method. It is impossible that it can injure the membrana tympani or the walls of the canal. The method of procedure is, after having put the patient under an anæsthetic, to introduce the loop gently into the ear, and turn it about until it is believed to have got behind the foreign body. This it will often do at once; but sometimes a little patience is necessary. In one instance I took out a piece of heavy lead in this way with very little trouble, using two loops at right angles with each other. The simplicity, safety, and efficiency of the method make it desirable that it should be better known.—*Br. Med. Jour.*, April 10, 1886.

Tangeman (C. W.) on the Use of a New Artificial Membrana Tympani.—The procedure, after the ordinary treatment of middle-ear disease, the author describes as follows: "I now applied a strong solution of cocaine to the membrane and middle ear, to render them less sensitive. A circular disk of surgeon's rubber adhesive plaster, as nearly the size of the natural membrane as it could be made, was carried to the bottom of the meatus with a delicate angular forceps, so as to close the perforation, and cover the entire membrane. It was pressed in place by means of a cotton-wrapped probe, until it had become firmly adherent, thereby forming again an air-tight space of the tympanic cavity. Inflation no longer yielded the perforation whistle, but the sounds were the same as when a healthy ear is inflated. The hearing was not tested immediately after the application of the plaster.

"Patient was asked to return on the following day, for the purpose of inspection. From the observation of others it seemed natural to expect a certain amount of irritation from this foreign body; but it caused no pain, nor a trace of irritation—in fact, the patient did not know, for a few days, whether the disk of plaster was still in the ear or not, except that he could not blow air through his ear, nor could he hear the puff of air when he blew his nose. So the patient continued until he was discharged, when his hearing was perfect, the membranes firmly in position as from the beginning, causing no pain, with hearing abso-

lutely perfect, not only for the watch and conversation, but also for musical sounds of high or low pitch (patient was a musician)."—*Med. News*, March 20, 1886.

M'Keown on a New Method of Keeping Perforation of the Membrana Tympani Open.—The writer described a method of making an artificial perforation of the membrana tympani which would remain open for a period varying from two weeks to two months. He made a triangular flap of the membrane, commonly selecting either that part in front of or that behind the handle of the malleus. He used a speculum, and illuminated the membrane by the frontal mirror. He then introduced the knife—a very fine straight knife with thin handle,—punctured the membrane in front of or behind top of handle of malleus, cut upwards as far as he could; then he made a second incision beginning below, either at anterior or posterior part of membrane as the case might be, and in a horizontal line with lower end of first incision, and cut upward until the two incisions joined. The flap thus formed, unless in case of very thickened membrane, fell down, or might be turned down with a fine probe, and commonly remained in position, adhering to the membrane below by blood exuded from the cut surface. The operation proposed was not for the purpose of making an artificial way for the waves of sound, but to give rest to the ear for a long period, and to induce a nervous and vascular equilibrium favorable to the absorption of deposits and restoration of function. Most troublesome obstructions of Eustachian tubes of long standing had given way to this treatment alone. As to relief of tension in old cases, a simple incision closing in a day or two could do no good, but an opening for a period of two weeks to two months might do a great deal. He illustrated the use of the method in diagnosis, and also in opening a way for efficient treatment of some cases of hypertrophic change of the lining of the middle ear. So far as he could follow his cases, he found none were made worse, some were not benefited, but the majority were relieved in a greater or less degree—some to a remarkable extent.—*Medical Press*, March 10, 1886.

McBride (P.) on the Tuning-fork in Diagnosis of Lesions of the Internal Ear.—Mr.—some months since fell from a height, striking the right temporo-parietal

lately perfect, not only for the watch and conversation, but also for musical sounds of high or low pitch (patient was a musician)."—*Med. News*, March 20, 1886.

region. He was stunned, and for two days could not stand. During this time there was paresis of the right arm and leg. Giddiness was at first intense, and is still troublesome. His right ear has been deaf ever since. The tuning-fork (the large fork used by Politzer, furnished with brass clamps, and vibrating 512 per second), placed on the middle line of the forehead, was better heard in the right ear, and was also distinctly perceived from the mastoid of the same side. The same remarks also apply to a small fork of higher pitch. The giddiness is increased by turning from right to left, but not from left to right. The right ear is quite deaf, and even words spoken loudly through a conversation-tube are not heard. The drum-membrane on the right side was slightly depressed, but moved freely outwards on Valsalva's experiment—needless to say, without improving the hearing power.

It is a fact that the time-honored tuning-fork test must now be considered as uncertain, whether in the positive or negative sense. No doubt it is a valuable aid to diagnosis, so far as we at present know, in a majority of cases; but then arises the question whether the number of exceptions may not increase more than we expect, as our knowledge augments.—*Br. Med. Four.*, April 10, 1886.

DISEASES OF THE EYE.

Roosa on Limitations in the Value of Glasses for the Improvement of Vision and the Relief of Disease.—

Having remarked that he was not sure that Donders, in giving us convex and cylindrical glasses, had not rendered as good a service to the human race as any one man; he said that he could perhaps make his subject as clear by a recital of practical cases in his experience as in any other way. Among the cases which he described were the following:

Pain in the back part of the eyes in using them for near objects. In this case the use of glasses alone was insufficient, although hypermetropia was present. By glasses, combined with the use of electricity and moral suasion, the patient was cured.

Frequent winking. In this case all glasses caused a blur; but relief was eventually secured by the use of convex glasses and exercise in the open air. The patient was a clerk in a country store, and in conse-

quence of the long hours demanded of him, was confined within doors most of the time.

Severe neuralgic headache. In this case the patient was a young seamstress, and complete relief was obtained by the use of cylindrical glasses.

Severe headache and distorted vision for close work. The patient was a young woman who had become reduced in circumstances and was obliged to work hard for a living by coloring photographs; but there was little chance of successfully treating her case by attending to the eyes alone. She had myotic astigmatism, and suffered also from uterine disease, as well as overwork and worry.

Sick headaches; hypermetropia. The patient was a woman of forty-three years of age. No relief whatever was given by the wearing of glasses, and it was plain that something else besides hypermetropia was the cause of her trouble.

Nausea and headache. In this case the patient, whose trouble was caused by a serious blow upon the head, suffered from asthenopia, and was unable to use the eyes for close work.

Asthenopia. In this case there was insufficiency of the internal recti, and relief was afforded by the use of electricity and appropriate glasses.

Frequent headaches; myotic astigmatism. Relief from glasses.

Dizziness and double vision. The patient was a young boy who had insufficiency of the internal recti, and nearly complete recovery resulted from the use of glasses.

The last two cases to which Dr. Roosa referred were typical instances of neuroses in which it is impossible to expect complete relief from the wearing of glasses alone. They were two brothers, of neurotic diathesis. He remarked, in closing, that not much could be done for the relief of uterine asthenopia.—*Med. News*, March 13, 1886.

Landesberg (M.) on the Use of Lanolin in the Ophthalmic Practice.

—The superiority over cosmoline as a base for eye ointments I can attest by my own experiments, having exclusively used lanolin for the last two months in all instances in which I had formerly resorted to cosmoline. The lanolin ointment being more consistent than the cosmoline ointment does not melt so easily when applied to the eyeball, and is for this reason more

pronounced in its topical action: It can be rubbed in so completely that hardly any fatty gloss remains to show the application, without irritating in the least even the most sensitive eye. As the capacity of lanolin for water is very great, any residue or surplus of the ointment can easily be removed from the eye by subsequent irrigation. Druggists highly praise lanolin for its property to combine more thoroughly than any other vehicle with the medicaments, by which they are enabled to compound an ointment which for homogeneity will answer the most idealistic expectations. The only caution we have to take is to prescribe smaller doses of heroic remedies for ointments with lanolin, as the latter, as it has been stated above, is so readily and completely absorbed by the skin.—*Med. and Surg. Reporter*, April 10, 1886.

Buller on Fragments of Rock Crystal Removed from the Cornea.—Dr. Buller exhibited three small fragments of rock crystal (the largest 1.5 mm. in length), which he had removed from the cornea of a marble-worker. They had been projected into the eye from the chisel of another workman. The patient came to Dr. Buller about an hour after the accident, and two small incised wounds of the cornea were found. These were parallel to one another, about 1 mm. apart, and nearly opposite to the lower margin of the pupil. After carefully examining the parts with focal illumination, he failed to find any foreign body, and prescribed a solution of atropine and a cold-water compress. The patient returned for instructions from day to day, but despite the treatment the eye became more and more inflamed, so Dr. Buller explored the wound with a fine cataract needle. He at once felt the needle come in contact with gritty particles, thus giving unmistakable evidence of the presence of a foreign body, which was wholly invisible. On moving one of the particles some aqueous humor escaped, showing conclusively that the foreign body had partly penetrated into the anterior chamber, and from being invisible, would be extremely likely to be pushed into the anterior chamber during any attempt at extraction. Now the man had some time before lost the other eye, so that it was of the utmost importance to save this one. The eye was placed under the influence of cocaine and the blade of a broad needle was passed

through the cornea into the anterior chamber, in such a way that the part containing the foreign bodies rested upon the flat surface of the needle. It was an easy matter then to remove the particles of rock crystal with a fine cutting needle, and without the slightest chance of their being pushed into the anterior chamber, a mishap which would have led to disastrous consequences. The eye, freed from the source of irritation, made a rapid and satisfactory recovery.—*Med. News*, April 3, 1886.

MISCELLANEOUS.

Martel on Expulsion of Tape-worm by the Mouth.—A woman of eighty-six suffered from slight indigestion and during an act of vomiting, perceived a singular thing in her mouth which she easily drew out, and found to be a tape-worm 67 cent. long, 2 mm. broad at one end and 8 mm. at the other; with links 2.5 mm. long which were sterile. Three days later she passed 120 centimetres of a worm by the bowels and later a fragment 60 cent. long. The last portions of the worm were stuffed with eggs.—*Gaz. des hôp.*, Jan. 30, 1886.

Toxic Effects of Sassafras.—Dr. S. J. Smith, of Charlotte, N. Y., writes: "On reading the article on sassafras in the February ANALECTIC, I thought from its relieving pain and its exhilarating effect it might prove good in a case of headache and general used-up feeling coming on after over-exertion, sometimes lasting two to three days. Every week I gave half a teaspoonful of the oil in four tablespoonfuls of water. The patient lay down for an hour, then got up, sat in a chair with hands on the knees. Complained of feeling as though she would fall out of the chair. She would raise the hands as if to prevent falling forwards. There was faintness and a queer feeling which she never has been able to describe. She had to go into a cold room. There was prostration, with vomiting, movement of the bowels, retching, salivation, and great prostration. She was got to bed, and felt as though she had been sick a week. She slept but very little that night. (Oil was taken about eight o'clock.) Did not get over the effects of the oil until the next afternoon."

Coleman on Three Cases of Ossification of the Choroid, and One Case

of Ossification of the Lens.—In cases one, two, three, and four the eye had been lost five, twelve, fourteen, and thirty-four years respectively before medical advice was sought on account of sympathetic trouble in the fellow eye. In cases one, two, and four the lost eye had occasionally been painful. In cases one, two, three, and four sympathetic disease did not occur after the loss of the eye until five, twelve, eleven, and eighteen years respectively. The sympathetic disease excited in case one was serous kerato-iritis; case two, cyclitis; case three, irido-cyclitis and cataract; case four, optic neuritis and mild iritis. Dr. Coleman advised the immediate enucleation of a bony eye on the same ground that the enucleation of an eye lost from injury in the ciliary region would be advised. Neither the ossification nor the injury is in itself the immediate cause of the sympathetic disease, but either may be the indirect cause by exciting an iridocyclitis.—*Four. Am. Med. Ass'n*, March 6, 1886.

Hutchinson on Necrosis of the Lower Jaw from the Medicinal Use of Phosphorus.—The patient was a lady, æt. sixty-five. The whole lower half of the face was enlarged, and several sinuses opened externally; bare discolored bone was exposed in the mouth along the whole length of the alveolus; discharge profuse and fetid in the extreme. In explanation of the origin of the necrosis, it was elicited from the patient that she had "been taking phosphorus for the last two years," and had "quite renovated her brain" thereby, the truth being that, save for a few intervals, she had during the time named been taking three Kirby's pills, *per diem*, each containing 1-33d grain of phosphorus. The condition of the patient being much reduced, operation was deferred, pending improvement in her general health, until the present month, when, Mr. Hutchinson removed about four inches of dead bone, without having to resort to cutting instruments for its separation, although he feared at first this would be necessary. The patient made an excellent recovery. The patient had carious teeth at the time, and inflammation of the jaw had begun in connection with one of them, and probably about six or nine months after the taking of the pills commenced.—*Med. Press and Circ.*, March 17, 1886.

Templeton on a Repeatedly Tapped Ovarian Tumor.—Mrs. H., afflicted

with an ovarian tumor, was first tapped June 6, 1853; from that time until her death, which occurred Sept. 2, 1880, paracentesis was performed 282 times, and the amount of fluid drawn off during the time aggregated the enormous amount, 5,050 pounds. The lady lived over twenty-seven years after the first operation was performed, and was seventy years of age at the time of her death. A post-mortem examination revealed a tumor attached to one ovary, the other being in a normal condition.—*East Med. Jour.*, Feb. 15, 1886.

Michael on an Unusual Case of Gunshot Wound.—At the end of twenty hours from the time of the accident the patient died.

The autopsy showed that the bullet had passed through the fifth rib, near its junction with the cartilage, through the pericardium, through the left ventricle, making in its passage an opening at its point of entrance and another at its point of exit, which two openings were connected by a furrow in the ventricular wall, ploughed up by the ball in its passage through the heart. After leaving the heart it had penetrated and passed through the lower lobe of the left lung, fractured the eleventh rib, and imbedded itself in the soft tissues of the back about two inches to the left of the spinal column.—*Med. and Surg. Reporter*, Feb. 20, 1886.

Trueheart on a Cure for Prairie Itch.—I have had perfect success in the treatment of it, and cured over one hundred cases in the last three months with the following *sure cure*:

R	Sulphur	℥ i.
	Balsam Peru.	f ℥ ii.
	Cosmoline	℥ iv.
M	Ft. ungt.	

SIG.—Apply every night. The patient should take a bath and change underclothing and bedding when treatment is commenced. The disease in question was a dread to me before using the above. It usually takes a week to effect a cure.

—*Kansas City Med. Record*, Feb., 1886.

Hunt on Epileptic Fits, Sequela to Acute Rheumatism, and Cured by a Second Attack.—A young man, æt. twenty-two, an accountant by profession, always in good health, had an attack of acute rheumatism in April, 1881. For this he was treated with the salicylate, with excellent effect as regards the rheumatic fever, from which he made a good recovery. Subsequently he suffered from severe and constant pain in the head. In the follow-

ing June he had the first epileptic fit. These seizures steadily increased both in frequency and severity, recurring twice and three times a week. His mental powers became affected, and he was incapacitated from attending to business. This state of affairs continued down to July, 1885, when he had another very severe attack of rheumatic fever, from which he made an excellent recovery, and with the unlooked-for and fortunate result of a complete disappearance of the fits and restoration to a perfect state of health.—*Med. Press and Circ.*, Feb. 3, 1886.

Grant (Ogilvie) on Rupture of the Heart.—A gentleman about fifty years of age complained, in the morning, of a slight pain in the chest. A medical man was sent for, who carefully examined the heart and lungs, and found them sound and healthy. A few hours afterwards, when the patient commenced to eat a light dinner, he suddenly fell down at once and expired. Next day I made a post-mortem examination, and found, on opening the cavity of the chest, that the lungs were not visible, having been pushed aside by a greatly distended pericardium, which, when opened, was found to be filled with large clots of blood. Having removed the clots, and exposed the heart, the surface of which was fatty, I found a rent on the surface of the left ventricle; this opening communicated directly with the left ventricle; the edges were irregular and friable. The valves were healthy and competent, and there was no atheroma present. From this superficial examination, I came to the conclusion that the rupture was due to fatty degeneration of the heart; but, on microscopic examination, I could detect no such degeneration. I then forwarded a small piece of the wall of the left ventricle, cut as close as possible to the rupture, to Professor Hamilton, of the University of Aberdeen, who very kindly examined it, and informed me that the piece I sent exhibited no signs of fatty degeneration. Thus the precise cause of the rupture appears to be obscure. Possibly the rupture was due to a degeneration of the muscle, and was limited to the fibres which actually ruptured.

From this and similar cases, I think it appears that rupture of the heart does not take place so often after severe exertion as it was supposed to do. This is not to be wondered at, considering that the heart is never at rest, and that the fibres, so to

speak, may be ruptured as readily by an irregular or slight contraction as by a violent one; and also it appears that some points in the pathology of rupture of the heart require to be worked out.—*Br. Med. Jour.*, March 20, 1886.

Knight (Chas. H.) on Fibroma of the Vocal Cord, Removed with Mackenzie's Forceps.—J. M., aged fifty-seven, iron moulder, family history good. Patient has always been well. Two years ago first noticed trouble in speaking; voice became husky and occasionally "cracked"; unable to sing as formerly. Dry cough. No history of any treatment.

With the laryngoscope a neoplasm the size of a French pea was seen at the junction of the anterior and middle thirds of the right vocal cord, perfectly round and smooth, of a livid red color, in striking contrast with the white vocal cord to which it was attached. It had a very short pedicle and during phonation it rested between the cords, being attached just at the margin of the right. There was a moderate degree of laryngitis, the left cord was almost normal, the right being especially congested, not in the vicinity of the growth, but at its posterior extremity.

The larynx was very capacious and tolerant. After thorough spraying of the fauces and larynx with a four-per-cent. solution of cocaine hydrochlorate, two unsuccessful attempts were made to remove the growth with Mackenzie's laryngeal forceps. One week later the growth was removed with the forceps on the second trial. There was very little hemorrhage. Six days after the operation the vocal cord was found to be perfectly smooth and normal, with the exception of slight congestion. The voice was almost natural and the patient said he had even been able to sing. It has since been learned that the patient had been under treatment for nearly three months, and that several attempts had been made to remove the tumor with chromic acid, with forceps, and with the sponge probang by the method of Voltolini.—*N. Y. Med. Record*, March 13, 1886.

Moriarty (M. D.) on a Case of Rhinolith.—It would appear that there are not more than forty-five cases of rhinolith on record (*British Medical Journal*, pp. 841 and 1,164, vol. ii. of 1885). I have recently come across a well-marked instance. The patient, a Mohammedan female, aged twenty-four, and otherwise in

sound health, had suffered from a discharge from the right nostril for six years; the nostril gradually became obstructed, and for two years had been completely blocked. Latterly the discharge had become offensive, with occasional slight bleedings. The right side of her nose, with the adjoining cheek and upper lip, were swollen, slightly reddened, and tender. A thin offensive discharge flowed from the right nostril, the margins of which were red and irritable; the septum nasi was markedly deflected to the left; the mucous membrane of the right nostril was much swollen, congested, and thickened, so as to almost completely close the anterior naris. Further examination disclosed two points of what appeared to be dead bone, one in the position of the anterior edge of the inferior turbinated bone, the other in the situation of the nasal spine; they appeared to be firmly fixed. A few days' syringing with perchloride of mercury lotion removed the fetor and reduced the swelling considerably. With a dressing-forceps I then seized the end of the supposed sequestrum on the outer side, when, to my surprise, it crumbled away. I tried a second time, with the same result. The portions removed were exactly like bits of a phosphatic vesical calculus after litholapaxy. The nature of the case was now clear; the rhinolith filled the whole nostril, hidden from view, except at two small points, by the swollen mucous membrane.

Taking a strong fenestrated nasal polypus-forceps, I gradually broke down the front of the stone, till finally, getting the forceps well on, I crushed the whole mass, breaking it into three large pieces, which were removed in succession. In the crushing considerable force was used. The bleeding was slight and easily checked. She complained of a good deal of pain in her upper front teeth, especially when the large pieces were being extracted.

After the last fragment had been removed she expelled from the nostril a quantity of grayish-white putty-like material, not unlike brain-matter, finishing with a huge plug, which evidently had occupied the posterior nares.

The nose was well syringed with solution of perchloride of mercury (1 in 1,000). She went home after two days; the external swelling had then almost entirely disappeared. The swelling of the mucous membrane had much subsided. There was no

discharge or fetor; the nostril was free; the deflection of the septum was unaltered.

The stone (dried) weighs exactly two drachms. There is no trace of foreign body. A certain amount of concentric lamination is apparent. A regular analysis has not yet been made. Doubtless the calculus is composed chiefly of phosphates, with perhaps a blood-clot for a starting-point.—*Br. Med. Jour.*, April 10, 1886.

BOOK NOTICES.

The Principles and Practice of Medicine.—By the late Charles Hilton Fagge, M.D., etc., etc. Vol. II., pp. 780.

The character of this second volume is quite equal to the first, and has an added value by reason of chapters on chronic endocarditis, by Samuel Wilkes, M.D., and a section on cutaneous diseases, by P. H. Pye-Smith, M.D. Not that these chapters are in any way superior to the rest of the book, but by filling gaps left by the inopportune death of the author, they render his work wellnigh perfect. There being nothing found to criticise in the book, it becomes a pleasant duty to recommend it as perhaps the *best* work on the Principles and Practices of Medicine.

PUBLISHERS' NOTES.

Lactated Food.—

110 PARK ST., GROSVENOR SQUARE, }
LONDON, W., ENGLAND, NOV. 13, 1885. }

MESSRS. WELLS & RICHARDSON CO.,

GENTLEMEN:—Having requested me to give you my opinion, as a food expert, upon your "Lactated Food," I do so herewith.

You state that it contains "the purified gluten of wheat and oats with barley diastase and malt extract combined with specially prepared milk sugar"; in other words, that it is self-digestive as regards the conversion of insoluble starch into soluble dextrine and maltose. My experiments with it lead me to hold that that is correct.

The food then contains carbo-hydrates, some albuminoid matter, and the various salts in grain, notably phosphate of lime.

Such a food can be added to milk and treated in the manner you describe in your leaflet. So prepared with milk it forms an admirable food for infants and dyspeptic persons who require very digestible aliments.

But it has a wider range of utility. The body-temperature is kept up by the combustion of grape sugar. Grape sugar is supplied from carbo-hydrates, either the insoluble starch, or the soluble sugar. Starch

forms a great portion of our food and is converted into grape sugar within the body. Where the system is unequal to the digestion of starch, as in feeble digestion, or conditions of acute disease, then predigested starch must be furnished to the organism. Otherwise the system will perish of exhaustion, just as a fire dies out when its fuel is consumed.

Beef tea contains nothing which can form grape sugar, and in fact is a pleasant stimulating beverage or food adjunct; but without food value practically. (For what food value it has is so infinitesimal that it is not worth counting.) But when it has added to it a food such as your Lactated Food it has a distinct measurable food value. Consequently such food should be given with beef tea, and the compound forms a valuable food.

When Lactated Food is placed in water hot enough to be sipped, a rapid transformation of the starch remaining in it (by the diastase it contains), goes on; and a nutritive fluid is the result which requires but a minimum of the digestive act.

Such fluid can be flavored and drunk as a nutritive beverage, specially acceptable in febrile conditions. Flavored with lemon, ginger, cloves or other flavoring agents to give variety—a matter far too much neglected in the treatment of the sick—it can be largely used. Or wine, either red wine or claret, or sherry, or port, can be added to it when a little stimulant is required; and brandy when a stronger stimulant is indicated.

The resort to farinaceous matters, predigested, must become greater and greater as our knowledge of digestion and its derangements wax larger. It is not merely in the case of feeble infants that such predigested starch and milk sugar are indicated and useful; persons of feeble digestion require these soluble carbo-hydrates which they can stimulate.

But to my mind an equally greater matter is the feeding of persons acutely sick, and especially where there is pyrexia, who now are allowed to perish of inanition on the mistaken conviction that beef tea is a sustaining food. It is in the sick-room that soluble carbo-hydrates have a great future before them.

J. MILNER FOTHERGILL, M.D.,

Member of the Royal College of Physicians of London; Senior Assistant Physician to the City of London Hospital; Associate Fellow to the College of Physicians of Philadelphia.

Horsford's Acid Phosphate.—Dr. T. F. Breck, Springfield, Mass., says: "I consider Horsford's Acid Phosphate very superior in diseases pertaining to the nervous system, and am very much pleased with results."

Lactopeptine.—

PHILADELPHIA, PA., May 30, 1878.

I have found great satisfaction in the use of Lactopeptine, and have ordered it frequently in cases of dyspepsia, especially where there is want of tone and defective secretion.

JOHN H. PACKARD, M.D.,
Pres. Pa. Co. Obstet. Society; Surg. Episcopal and Women's Hospital.

Colden's Beef Tonic.— . . . Having become familiar with "Colden's Liquid Beef Tonic," I take pleasure in recommending it as an excellent preparation, combining as it does food and tonic in a remarkable way, producing good blood, health, and strength.

S. W. HUNTER, M.D.,
Baltimore, Md.

Uterine Tonic.—Aletis Cordial (Rio) is, without doubt, an excellent Uterine Tonic. I am more than pleased with the satisfactory results produced by its use in cases of Uterine troubles which have come under my observation. I regard it as an invaluable medicine.

H. T. Cox, M.D., Mobile, Ala.

Peacock Bromides.—See the advertisement of The Peacock Chemical Co., in this issue.

Viburnum Compound.—For information concerning this preparation write to the N. Y. Pharmaceutical Co., Bedford Springs, Mass., for their Hand-book.

"Gluten Flour."—Physicians who are not yet acquainted with Gluten Flour as prepared by Messrs. Farwell & Rhines, should write for their catalogue.

Iron-Alum Mass.—The Seven Springs Iron-Alum Mass, is, in my opinion, the best iron preparation known to the profession.

L. J. BURTON, M.L.,
Blossom Prairie, Texas.

Phosphopeptine.—Practitioners will find this preparation well worth a trial and should send for samples; see their advertisement on another page.

THE MEDICAL ANALECTIC

A
MONTHLY EPITOME OF PROGRESS IN ALL DIVISIONS OF
MEDICO-CHIRURGICAL PRACTICE

EDITED BY
R. W. AMIDON, M.D.

VOL. III., No. 5.

May, 1886.

WHOLE No. 29.

LEADING ARTICLES.

Gombault on the Lesions of Alcoholic Neuritis.—It is well known to-day that chronic alcoholism is accompanied by profound changes in the peripheral nerves independent of an equivalent alteration in the cord or the spinal nerve roots. It is also well known that the later anatomical characteristics of this peripheral neuritis are very like to, if not identical with, those of Wallerian degeneration. I will try and clear up the less understood initial stage of the disease. The great mass of the fibres show characteristics assigned by M. Ranvier to Wallerian degeneration, while a small number have an entirely different appearance.

In the first place the myeline sheath, instead of being grossly divided and in the form of large globules, is in a state of fine emulsion; very often the fine fatty particles thus produced are united by large cells which constitute within the sheath of Schwann a regular muff of granular bodies.

In the second place, the axis-cylinder *persists*, while in Wallerian degeneration it rapidly disappears. The presence of the axis-cylinder in fibres treated with osmic acid is always difficult to determine, but by varying the modes of preparation and comparing their results the determination is easy.

I have previously demonstrated¹ that a similar association of different lesions exists in experimental saturnine neuritis. Since then the same lesions have been noted in diphtheritic paralysis by Meyer,² Gaucher,³ and myself.⁴

One stage of this experimental saturnine

neuritis consisted in an isolated disorganization of a certain number of interannular segments (segmentary neuritis). In each of the segments thus changed the axis-cylinder persisted (periaxile neuritis) and, because of this persistence, the portions of the fibres below the diseased areas remained unaltered. This form of neuritis terminates either by a restoration of the altered parts and the formation of fine and short segments or, the lesion progressing, by the destruction of the axis-cylinder at the diseased point and the subsequent Wallerian degeneration below the point of section. Segmentary, periaxile neuritis thus explains the development of Wallerian degeneration, and constitutes the pre-Wallerian stage of neuritis. Our investigations compel us to think that there exists a pre-Wallerian phase also in alcoholic neuritis, characterized by multiplication of the nuclei and emulsion of the myeline sheath, the axis-cylinder being preserved.

This pre-Wallerian stage, by reason of the intensity of the process, tends rapidly to destroy the axis-cylinders of most all the fibres and therefore to Wallerian degeneration.—*La France médicale*, March 2, 1886.

Suzuki (S. M.) On the Effect of Dietetic Treatment in Chyluria.—Iriki Jûjirô, age twenty years and seven months, native of Osumi (southern part of Japan near Kagoshima), enlisted in navy on January 5, 1883.

On August 21, 1883, he had suffered from first attack of chyluria, and this had quite disappeared on December 11th, of the same year (lasting 113 days). On July 4, 1884, chyluria again made its appearance and disappeared on November 7th of the same year (lasting 127 days). The third attack (the present one) occurred on January 7, 1886, after an interval of fourteen months from the second attack.

¹ *Prog. médical*, 1880, No. 10.—*Arch. de Neurol.*, 1880, Nos. 1 and 2.

² *Virch. Arch.*, 1881.

³ *Jour. de l'Anat.*, 1881, No. 1.

⁴ *Soc. Anat.*, 1881, Feb., p. 106.

He was admitted to the hospital on January 14th.

The symptoms of these attacks were ordinary, with the presence of numerous filaria in his blood, especially at night. The system adopted was not specially employed in the previous attacks. Having recalled the fact that at present there are no curative measures for filaria sanguinis hominis, I began to observe the amounts of the urine passed in twenty-four hours, at the same time noting how much of the urine was clear, and how much cloudy; also the frequency of micturition; the temperature; the effects of diet and of exercise upon the character of the urine; and the weight of the patient, making a table for these facts. It will be noticed in this table that the amounts of urine excreted in twenty-four hours range between about thirty to thirty-five ounces, that from January 18th to February 1st, the amounts of clear urine ranged between ten and fifteen ounces (this usually passed in the daytime), and cloudy urine amounted to between fifteen to twenty ounces (usually passed at night).

During this period the food taken by the patient consisted of an ordinary mixed diet, and daily exercise (walking in open air) of half an hour was taken.

From February 2d to 8th, each meal given to him consisted of twelve ounces of bread, six drachms of sugar, and sixteen ounces of tea three times daily, without taking exercise. By this the amounts of clear urine increased a little, reaching to fifteen ounces.

From February 9th to 15th his breakfast consisted of six ounces of bread, half an ounce of butter, and a pint of tea; dinner—eight ounces of meat, four ounces of bread, and eight ounces of vegetables; supper, same as breakfast, and daily exercise of half an hour has been taken regularly. It is striking to notice at the moment of the change of food the character of the urine presented a very marked difference, the whole amount of the urine becoming quite milky even at mid-day, as is shown in the table.

From February 16th to March 9th each meal consisted of twelve ounces of bread, six drachms of sugar, and one pint of tea, given three times daily, and exercise of half an hour was taken daily.

The urine became quite clear from the day following the change of food.

Examinations of the milky urine have been made frequently, both in the daytime as well as nighttime, but no filariæ could be found in it.

It was also noticed that when the blood has been examined during the period in which milky urine was passed, the filariæ moved very actively upon the slides, and they were numerous; but on the other hand, at the period of excretion of clear urine, the filariæ become very inactive and less numerous. As we know the filaria sanguinis hominis intermits in its course, some one may say that the action of different diets upon the urine is due to accidental causes which happen to correspond to the natural intermittent period of filaria, but considering the history of the two previous attacks I would not incline to think these phenomena due to an accident, as each of two previous attacks having lasted about four months, it is not likely that in the present attack only the duration would be so short.

We have many analogous examples of the effects of dietetic treatments upon diseases—for instance, saccharine and starchy foods aggravate diabetes, and excessive hydro-carbonaceous food provokes kakke, and the proper use of nitrogenous food prevents kakke, and scurvy originates from deficiency of fresh vegetables and good supply of which or similar substances may cure the disease, although these diseases are not parasitic diseases. I will tabulate the districts in which the cases have occurred as follows:

Occupation.	District.	Complication.	Sex.	Age.	Bodily Constitution.	Articles Patients Fond of.
Sailor . .	Kagoshima	—	Male	21	Good	—
Sailor . .	Osumi	—	Male	20	Medium	—
Pupil . .	Kumamoto	—	Male	20	Good	Wines.
Trader . .	Mutsu	Chronic bronchitis	Male	43	Weak	Tobacco & fishes.
Artisan . .	Sannohe	syphilis	Male	21	Medium	Tobacco & meat.
Peasant . .	"	Hysteria	Female	45	Medium	Tobacco & sweets.
Peasant . .	"	Gastric catarrh	Male	53	Medium	Wines.
Peasant . .	"	—	Female	56	Weak	Tobaccos & sweets.
Peasant . .	"	Caries of Tibia	Female	22	Medium	Wines.
Artisan . .	"	—	Male	21	Medium	Wines.
Peasant . .	Iwate ken	—	Male	27	Good	Wines.
Peasant . .	Mutsu	—	Male	37	Good	Wines.
Peasant . .	Sannohe	Entropion	Male	37	Good	Wines.
Peasant . .	"	—	Male	56	Medium	Wines & tobacco.
Peasant . .	"	Anæsthesia and atrophy of upper lines	Female	37	Good	Tobacco.
Fisherman	"	—	Male	44	Weak	Tobacco.
Trader . .	"	Syphilis	Male	51	Medium	Wines.
Total, 16						

In concluding I may mention that the

filaria sanguinis hominis is endemic in the southern part of Japan, as in Satsuma, Kumamoto, and also in the northern part, as in Mutsu.—*Sei-i-Kwai*, April, 1886.

Courtade (A.) on Epithelioma of the Male Breast.—Because of the rarity of this affection the author narrates two cases in detail.

The first case was a locksmith of fifty-six, with no hereditary taint nor history of syphilis. For four months he had had pain in the left breast, and two months ago he first noticed a tumor the size of a felfert, beneath the nipple. The tumor increased in size and grew much more painful. Local treatment, including compression and the internal use of the iodide of potash, was without benefit, and the breast was finally removed.

The second case was a stone-cutter of forty-six, whose own and family history were good. Five months before he was seen he had noticed a slight induration in the right breast. It became the seat of pain and gradually increased in size. When examined there was a rounded tumor beneath the nipple about two centimetres in diameter. Pressure of the tumor between the fingers caused to exude from the nipple a few drops of fluid like butter-milk. The breast was ablated with antiseptic precautions.

Histologically the two tumors were exactly identical and typical epitheliomas.—*L'Union méd.*, Dec. 31, 1885.

Hare (H. A.) on the Effect of the Sulphate of Quinia, Given in Moderate Doses, upon the Number of the Red Blood-Corpuscles.—The very general use of quinine as a tonic, apart from any anti-periodic effect, shows that it must in some way improve the condition of the system, not only by acting as a simple bitter tonic, but also by means of some power peculiar to itself. The question with which this article is headed has been probably answered mentally in the affirmative by every one who has read it; but while this opinion is now prevalent among the profession, there has been no experimental proof of the correctness of this belief. On the contrary, all the experimentation of which we have any record is contradictory to the general idea. As long ago as 1855, Briquet¹ made the assertion that quinine in con-

tinued therapeutic doses lowered the proportion of the red blood-corpuscles. Notwithstanding the fact that Briquet's experiments were very thorough, his statements seems so contrary to all our clinical experience, that I made the following observations, in order to decide, if possible, which belief was the proper one. With this object in view, I first made counts of the red corpuscles to the number of forty-two on my own blood, at a time when I was under the influence of no drug, and also made another series of observations while taking ten grains of the sulphate of quinine a day. While forty-two counts were made in each appended table, it will be seen that only fourteen counts appear, the explanation being that each of the numbers given in the table is the average of three counts made at each of the times named. This taking of the average of three counts was for the purpose of avoiding error. It will also be observed that strict attention was paid to the hours at which counts were taken, as variation in this respect would nullify all results, owing to the constantly changing proportion of the blood discs at various portions of the twenty-four hours. These precautions having been taken, there is left but little room for fallacious results, since, in addition, I was careful as to my diet, and maintained a regular mode of life.

At the time that Briquet published his paper, the methods for making careful estimates of the corpuscles were very crude, comparatively speaking, and even at the present day, all of the hæmatocytometers are in part unsatisfactory, and to a certain extent, unreliable. That they are accurate enough to be useful adjuncts to the armamentarium of the clinician is certain, but he who does much blood-cell counting must be impressed with the thought that the old methods must have given very uncertain results.

The following figures are the estimates by various observers of the number of red corpuscles to the cubic millimetre, and are quoted for the sake of illustrating the difference not only between the estimates of many years ago, but also as showing that even at present, with our comparatively perfected instruments, we often find considerable discrepancies in results.

Welchker found	. . .	4,600,000
Cramer	" . . .	4,726,000
Malassez	" . . .	4,000,000

¹ Briquet: *Traité Thérapeutique de Quinquina*. Paris, 1886. Quoted by H. C. Wood.

Gowers found . . . 5,000,000

Nancrede and Henry found 5,751,000

The writer found . . . 5,942,000

The observations are in chronological order.

While our apparatus is therefore somewhat inaccurate, it makes little difference in the results obtained in an investigation such as the one before us, since the object is not to find out the exact number of the corpuscles, but to discover if their number, under the same circumstances, is increased or diminished, the same blood-cell counting apparatus being used in each and every count.

The writer used the apparatus of Malassez, with the mixer of Potain. In taking the doses, the following order was adhered to: Four grains at bedtime, and three grains each after breakfast and after dinner, at mid-day.

The results showed a very considerable increase in the red blood-corpuscles when the system is under the influence of quinine. It is proper to state that, owing to idiosyncrasy, ten grains of this drug a day produced positive symptoms of cinchonism.

Average number
before drug . . . 5,822,286

Average number
with drug . . . 6,194,285

—*Boston M. and S. Jour.*, April 22, 1886.

Martineau on the Treatment of Pruritus Vulvae.—When there is an acute lesion, as the first stage of vulvitis, he uses emollients as poultices, lotions containing belladonna, aconite, poppyheads, or a solution of the bromide of potassium (2-300), or chloral (2-100). All applications should be warm. When the acute stage is past, he employs lotions of corrosive sublimate 2-300. If there is any eczema about the parts, he uses at bedtime an ointment consisting of fifty parts of glycerite of starch with one part of tannin, calomel, extract of belladonna or oil of cade. Sometimes light cauterizations with nitrate of silver are useful. Guéneau de Mussy prescribes the following ointment to be rubbed upon the vulva morning and night.

℞ Extract of belladonna . . . gr. iii.
Calomel . . . gr. viiss.
Subnitrate of bismuth,
Bromide of potash . . . ʒss gr. xv.
Glycerite of starch . . . 3 v.

At the same time he used a lotion consisting of borax 3 iss., dilute hydrocyanic acid ʒ iss. and infusion of mallows one quart.

Delieux de Savignac applied, after this lotion, the following powder: Powdered belladonna root, two parts, sub-nitrate of bismuth, ten parts, and lycopodium, thirty parts. He also used a solution of the nitrate of aluminium (1-100).

Besnier used a combination of equal parts of diachylon ointment and olive oil.

Lusch, for vulvar eczema, employed a lotion consisting of glycerine, 6 parts, bi-carb. sod., 4 parts, bicarb. potash, 8 parts, tinct. opium, 8 parts, and water, 250 parts.

Sinétý recommends laudanum, 1 part, chloroform, 3 parts, of oil of cade and sweet almonds, each, 20 parts.

Some employ antiseptic solutions as carbolic acid, 1 part, thymic acid, 2 parts, alcohol, 10 parts, water, 200 parts; or hydrochlorate of morphine, gr. x., borax, 3 iss., and chloroform water, ʒ x.

Of late cocaine has been used by some with success, while others use iodoform or local baths of sulphur or carbonic-acid water. In rebellious cases M. Martineau relies on local application of sublimate solutions. Due regard must of course be paid to the general condition of the patient. —*Tribune méd.*, Jan. 3, 1886, and *Lyon méd.*, Feb. 28, 1886.

Omerod (J. A.) on Iodide of Potassium in Spasmodic Asthma.—Although iodide of potassium (KI) is well known as a remedy for spasmodic asthma, it is a remedy which seems to be held in very varying estimation. Some authorities speak of it as a specific, others say it is worth a trial, others do not mention it at all. I have put in tabular form the chief facts relating to thirty-six cases of asthma treated by me, as out-patients at Victoria Park Hospital, with this drug. All of my cases displayed, though with varying severity, the cardinal symptoms of the disease, viz., difficulty of breathing, coming on suddenly, usually in the early morning during sleep, passing off after a time so as to leave the patient comparatively well, but recurring usually in a regular fashion, and at regular intervals.

Whatever be thought of the pathology of the disease, its existence as a symptomatic entity is undoubted. And I think that inferences concerning the effect on it of a simple drug like iodide of potassium may fairly be drawn from out-patient practice; for (1) though the physician may not witness the spasm, the sufferer is as well qualified as any one to tell of its frequency and

severity, and (2) the patient is treated without change of his every-day surroundings, a change which frequently is of itself sufficient to modify this disease.

I have endeavored to classify the cases as follows :—

Asthma for the most part uncomplicated.

Asthma with bronchitis or emphysema ; the relation between the two being doubtful.

Asthma with secondary emphysema.

Asthma secondary to bronchitis or emphysema.

But unless the disease be watched from the beginning and over a length of time, and the physician be able to examine the chest both between and during the spasms, it is difficult to say for certain into which category a case should go, so that my classification is at best but a rough one.

The iodide was given alone, or if in combination only after the effect of the uncombined drug had been watched. It proved a failure in nine out of the thirty-six cases—*i. e.*, only in 25 per cent. Its good effects (with a limitation to be mentioned presently) were not limited to the uncomplicated cases. The cases where the asthma appeared to be distinctly secondary to chronic lung disease are indeed too few to say much about ; but in some of them at least it did good. The symptoms most amenable to the drug were certainly the nocturnal attacks of dyspnoea ; its effect on them was often remarkable ; thus in many cases they disappeared altogether ; in others they were much reduced in frequency and severity. But a troublesome cough, or a certain shortness of breath on rising in the morning, often persisted. That the nocturnal attacks were really controlled by the iodide was shown by the unwelcome but noteworthy fact, that they returned (in many cases) whenever the drug was stopped. It has therefore the effect of relieving rather than curing. Five or ten grains three times a day suited best in most cases ; in some a larger or smaller dose did better ; in some an increase of the dose did good for a time, but the effect seemed to wear off.

The condition of the nasal mucous membrane contributes, it is said, to the production of asthmatic attacks ; and iodide might therefore be thought to act by producing coryza ; but coryza occurred in very few of the patients thus treated. In one case the attacks had been preceded by

coryza, and they were nevertheless stopped by iodide.

Syphilitic taint has never, so far as I know, been alleged as the cause of asthma. In one case I substituted mercury for the iodide, and a relapse immediately followed.

The gouty diathesis is an undoubted cause of asthma, and iodide of potassium is known to be useful in cases of gout. But the promptitude of its effect on the spasmodic attacks of asthma, and the promptitude of the relapse when it is stopped, makes it unlikely, I think, that it acts by modifying the general condition of the patient.

I believe that its action may be fairly compared to that of bromide in epilepsy. The chemical similarity of the drugs is obvious. There are similarities also between the two diseases. Both are characterized by attacks which occur periodically and often with considerable regularity, and which leave intervals of tolerable health. Epilepsy often begins in the night, as asthma does still more frequently. Asthmatic attacks may be preceded by a kind of warning. Both diseases are probably due to some fault in the central nervous system, though in both extrinsic causes may determine an attack. The two remedies act promptly in either disease, and act best upon the capital symptom ; thus the typical epileptic attacks are more amenable to bromide than are the *petit mal* and other aberrant manifestations of epilepsy ; while iodide controls the sudden and severe nocturnal dyspnoea rather than the cough and slight shortness of breath which many asthmatics experience on waking in the morning. Neither drug is curative, at least in confirmed cases ; though relapses on discontinuation of treatment are more speedy, I imagine, in epilepsy than in asthma. Lastly, in both diseases there remains a certain proportion of cases not benefited by these drugs, though the proportion of asthmatics unaffected by iodide is probably larger than that of epileptics unaffected by bromide ; and iodine as a remedy in asthma has certainly more numerous and successful rivals than has bromine in epilepsy.

In all there are collected thirty-six cases, of which about sixteen were tolerably uncomplicated cases of asthma. Of these cases two were cured, three experienced great relief, six were free from paroxysms while taking the medicine but

suffered relapses on ceasing it, three experienced some relief, and two no relief. The remaining twenty cases were complicated with bronchitis or emphysema. Of these, four were cured, five got great relief, three were free from asthma while taking the medicine, four got some relief, and four none.—*The Practitioner*, April, 1886.

Shaw (A. B.) on Cocaine in Insanity.—It has been claimed that cocaine would prove of invaluable service in the treatment of insanity, and particularly in that form known as melancholia, by reason of its powerful stimulant and exhilarating properties.

That not only would the melancholiac be caused to forget his doubts and fears, but that under its magic spell he would partake of food freely, and from the combined influence of these two effects his condition would be very much ameliorated; those in charge of him would have less trouble, and his cure would of necessity be materially hastened.

This is certainly an attractive trinity, but—well in view of what has been stated in regard to the prostration, insomnia, hallucinations, and loss of appetite consequent on its use, what must we think of such claims?

The unfortunate results which have followed and will follow the diffusion in the popular mind through the secular press by positive assertion and ingenious insinuation, the idea that wonderfully beautiful results are to be derived from the use of cocaine in disorders of the mind, the opium habit, and dipsomania are deplorable.

When once this charmer has charmed its victim, it undermines his physical and mental powers, his honor, honesty, conscience, veracity, faith, chastity, morality, self-respect, and respect of his fellow man for him.

To the self-complacency, egotism, and disregard for the truth which it begets, I attribute one half of the statements made by alcohol and morphine slaves who have been placed upon it, to the effect that their old favorite is no longer desired. In the remaining fifty per cent. there is probably no longing for the old mistress because the stimulant cocaine with all its evil sequences has simply, for the time, displaced *not eradicated* the former habit.

Not only is it degrading and debasing in every sense of the word, but as I claimed in a recent paper published in the *Weekly*

Medical Review of October 24, 1885, cocaine produces insanity in a remarkably short time if used continuously and in increasing doses.

So far as I know, I can justly claim priority in calling the attention of the profession to the pernicious influence of cocaine in this direction.

Shall we treat a scalded child by pouring boiling water over or into it, or tetanus by systematically inducing violent spasmodic muscular action? Certainly not; and the attempt to cure insanity by prescribing cocaine, is equally absurd and reprehensible.

One of the prime factors in the production of insanity and the most potent cause of its continuance until pronounced organic lesions occur is hyperæmia of the brain.

Now the exhilarating effect of cocaine is largely due to an abnormal supply of blood to, or hyperæmia of, the brain. And hyperæmia of any organ, if long continued, or if pronounced, and frequent repetition, results in hyperplasia.

But without multiplying examples I am convinced, that, as excessive mental exertion long continued, great anxiety, or alcoholic excesses, etc., will cause a form of insanity wherewith we find as pathological conditions of the brain excessive proliferation of connective tissue, congestion and thickening of the membranes, and degeneration of its substance, etc.; known as general paralysis of the insane, and characterized so far as mental symptoms are concerned, by sleeplessness and general restlessness associated with transient depression and hypochondriacal fancies, forgetfulness, mobility of disposition, generally good-natured but liable to spells of passionate excitement; disposition to undertake impractical enterprises; remarkable extravagance in both acts and language, with grandiose notions as to wealth, physical and mental powers, etc., alternating with acute maniacal or melancholic attacks, marking step by step the progress towards general fatuity, with now and again some remarkable remissions, so will cocaine, if persistently administered in increasing doses—and there is so rapidly established a toleration of, as well as craving for, its exhilarant effect that increasing dosage becomes a necessity,—cause a form of insanity closely resembling, so far at least as the mental symptoms are concerned, *general paralysis of the insane*.

Let us for a moment review some of the mental symptoms due to the use of cocaine in considerable quantities: 1st. Sleeplessness. 2d. Carelessness. 3d. Forgetfulness. 4th. Emotional mobility. 5th. Suspiciousness. 6th. Extravagant ideas as evidenced by both acts and language, claims as to mental superiority and physical powers. In short, ideas of grandeur. 7th. Attacks of maniacal excitement alternating with melancholia.

Does not this picture recall the one made up of the mental symptoms present in general paralysis of the insane?

But it may be urged that because of the exhilarating effect of cocaine it will prove curative in melancholia if administered in quantities insufficient to produce insanity.

A priori this seems reasonable. Especially will it do so to a mind already under the influence of cocaine, but when we consider that the exhilaration produced by cocaine is of but transient duration, that it is followed by a period of depression more profound than that which existed prior to its administration, we cannot but realize that such treatment will be prejudicial to the best interests of one suffering from melancholia.

I have seen a patient afflicted with melancholia attempt suicide by cutting the radial artery three times in ten days, while he was receiving cocaine to such an extent, in order to exhilarate him, that it so seriously impaired his desire for food and general nutrition and strength, that the nurse in charge of him—and she has had about twenty years continuous experience in caring for the insane—declined to continue the drug unless I *positively insisted* that she should do so.

While insane patients that could scarcely be induced to take nourishment have, under the influence of cocaine, partaken more freely of food than they did before its administration, yet the daily use of cocaine, even in small doses, seems to invariably impair the desire for food; although the contrary is generally stated by the patient notwithstanding he is gradually losing weight and strength.

Now it is one of the cardinal points in the treatment of melancholia that the body must be well nourished if possible, and I do not hesitate to assert that any treatment that will have even a tendency—let alone a positive influence in this direction—to even indirectly interfere with the nourishing of the patient is inconsistent and reprehensible.

Another cardinal point always to be kept in view in the treatment of insanity, is the securing of sleep for the patient. And it is a rule, I was about to say without exception, that cocaine produces insomnia, and not only insomnia but wakefulness accompanied by the most horrid hallucinations.

It seems absurd to a degree almost beyond conception, to give an agent in the treatment of insanity that interferes with the nutrition of the body, whether its action causes a lack of desire for food, or directly interferes with the proper performance of the digestive process.

It is equally absurd to prescribe a drug which will necessarily abridge the small amount of sleep we are able, even by the administration of quite considerable doses of powerful anodyne and hypnotic medicines to secure for the insane, and certainly nothing can be more supremely ridiculous than the attempt to cure insanity by the use of a drug that not only induces those conditions which predispose to insanity, and intensifies them where they already exist, but will in a remarkably short time produce insanity.—*St. Louis Med. and Surg. Jour.*, March, 1886.

THERAPEUTICS.

Mays (T. J.) on the Analgesic Action of Theine.—The physiological effects of theine as brought out in a number of individuals, under my own observation, may be summed up as follows: Dose, one third of a grain hypodermically. Numbness of arm and hand below seat of injection, "a feeling as if the hand had been steeped in a solution of carbolic acid," as one of the subjects of experimentation expressed it. A feeling of coldness and an occasional disturbance of the temperature in the member under its influence. A slight reduction in the pulse-rate, and no cerebral intoxication. No impairment of motion. The anæsthesia comes on in a very few minutes after the injection, and was much more marked in some individuals than in others. The temperature disturbance was not regular. Out of four cases in which the temperature was taken, it showed no difference in one, and in another one the uninjected hand was slightly higher (0.4° Fahr.) in temperature than the injected one. In two there was quite a marked fall in temperature—one 0.8° Fahr.

and the other 1.2° Fahr. lower in the hand of the injected arm than in that of the un-injected one. And strange to say, the hand which showed the greatest depression in temperature experienced the least anæsthesia. A certain feeling of coldness always accompanies the numbness of theine, yet, in my earlier observations I failed to detect any difference with the thermometer. Dr. Castle was the first to notice this feature, and I can quite agree with him, that if the lowering of the temperature is constant after its injection, this will add materially to the clinical worth of the remedy. The effects of theine and caffeine are not identical. They differ in the following respects: Theine principally affects sensation, while caffeine principally influences motion; theine produces spontaneous spasm and convulsions, while caffeine does not; theine generally produces muscular relaxation in the posterior extremities, while caffeine produces muscular rigidity in the same; theine impairs the nasal reflex early in the poisoning process, while caffeine does not, if at all, until in the very last stage.

I think my experiments on frogs demonstrate that while it produces sensation when locally applied, its chief characteristic action begins at the spinal cord and spreads thence to the periphery of the nerves. Hence it is indicated in all pain of central, especially of spinal origin, as in that of the different forms of neuralgia, of neurasthenia, of locomotor ataxia, of ischæmia of the spinal cord, and of spinal irritation. I have also seen it act very well in lumbago. But pain depending upon peripheral irritation, such as that caused by an injury to the surface of the body; or that caused by a carious tooth, etc., is more successfully treated by the surface or subcutaneous application of cocaine.

The action of cocaine is, in many respects, the inverse of that of theine. It does not, like theine, produce anæsthesia of the skin or mucous membrane by affecting the trunk of the nerve and thence all its terminal filaments, but by coming in direct contact with the endings of these filaments. It is for this reason that cocaine has failed as an analgesic in neuralgia.

Theine, as a rule, is surprisingly prompt in exerting its analgesic action. I have on a number of occasions witnessed patients who had too much pain to move the arm, or too stiff to stand erect, swing their arms and straighten their bodies in less than five

minutes after its introduction. It is not always so prompt, but this may be due to the smallness of the dose. I have seen cases in which no benefit had been derived from one third of a grain, but which, on the dose being doubled, improved at once. Therefore, when a single dose fails to act favorably, it is always advisable to increase it, even if this has to be done to a large extent. I have repeatedly injected two grains, not in a single, but in four separate injections, in as many different localities along the back, within the space of five minutes, and found nothing but the best results.

Another feature which recommends theine to favor is its prolonged influence. After pain has once been relieved by it, it is very rare to find the same returning inside of ten or twelve hours, and oftener not until in twenty-four hours, and then, in all probability, not in its original intensity. I am referring now to obstinate cases of pain. Where the pain is more unstable, it is not a seldom occurrence to find that one or two injections relieve it permanently.

In order to obtain the full effect of theine, it is not necessary to inject it deeper than immediately beneath the skin.

No prolonged irritation and no inflammation are produced at the seat of injection. It gives rise to considerable pain or burning at first, but this disappears in the course of a very few minutes, and is replaced by a marked area of anæsthesia. Most of the burning is undoubtedly due to the comparatively large amount of water which is necessary to dissolve a drug of a solubility as low as that of theine in cold water—which is one in fifty parts. This can be overcome by dissolving the theine in warm water, in which it is very soluble, even at the normal temperature of the body. In this way a whole grain can be dissolved in a very few minims of water.

In regard to the employment of a particular kind of theine, I would say that it is tolerably certain that every thing which falls within the commercial description of both drugs is principally made up of theine; hence very good clinical results are obtained from that which is found in the market—especially that of Merck, which I have principally used,—although it is very obvious that, if my experimental deductions in regard to the differential action of theine and caffeine are correct, much better results are obtained from theine when unalloyed with caffeine.

In conclusion, I beg to say that all the practical value which the contents of this paper may have, emanates from the pharmacological laboratory, for it was through its methods alone that the first clew to the analgesic action of theine was discovered.—*Med. News*, April 17, 1886.

The writer gives details of thirty-five painful affections of different sorts treated by theine hypodermically. The results can be best summarized in tabular form :

	Cured.	Relieved.	Unimproved.
Sciatica	5	2	1
Lumbago	4	0	0
Intercostal neuralgia	3	0	0
Cervico-brachial neuralgia, ...	4	0	1
Myalgia	3	0	1
Pain in shoulder	2	0	0
" hip	0	1	0
" " from hip-joint	0	0	1
Rheumatic gout	0	1	0
Lumbo-sacral neuralgia	0	1	0
Pain from bunion	0	1	0
Rheumatic pain in arm	0	1	0
Inter-scapular pain	1	0	0
Pain of carbuncle	0	1	0
Pain undescribed	0	0	1
	22	9	5

By cure in the above cases is meant a permanent relief of the painful element in the case. The writer advises small injections (gr. $\frac{1}{4}$) frequently or larger amounts (gr. $\frac{1}{2}$ — $\frac{3}{4}$) less often.—ED.

Bullard (W. N.) on Chronic Tea Poisoning.—The writer concludes :

(1) That the action of tea is cumulative.
(2) That its action is more pronounced on the young and on those subject to anæmia or in a depressed physical condition, although persons otherwise healthy not infrequently show toxic symptoms.

(3) That among the class of people under consideration, who, as a rule, use medium grades of Oolong and English Breakfast tea the average amount needed to cause toxic symptoms is a little less than five cups per diem.

(4) That chronic tea-poisoning is a frequent affection, and that its most common symptoms are loss of appetite, dyspepsia, palpitation, headache, vomiting, and nausea, combined with nervousness and various forms of functional nervous affections, hysterical or neuralgic. These symptoms are frequently accompanied by constipation and pain in the left side or cardiac region.

—*Boston Med. and Surg. Jour.*, April 8, 1886.

Dujardin-Beaumetz on Ethoxy-caffeine.—From his investigations he feels warranted in concluding :

1. That the introduction of the group ethoxyl or oxyethyl (OC_2H_5) into the atomic constitution of caffeine modifies the physiological and therapeutical qualities of that alkaloid, making it a marked cerebro-spinal sedative and giving it incontestable narcotic properties.

2. That in doses of four grains it yields very beneficial results in the treatment of migraine, and can be advantageously substituted for caffeine.—*Bull. gén. de thérap.*, March 30, 1886.

Peyronnet (A.) on a Spray of Methyl Chloride for Trifacial Neuralgia.

—After discussing the efficacy of other remedies, the author concludes that when the urgency for relief is great nothing gives such immediate relief as a spray of methyl chloride.¹ The spraying should be quick and light. The analgesia appears to be due to a congelation of the terminal superficial expansions of the nerves.—*Le Prog. méd.* March 27, 1886.

Zeiss (R. W.) on the Use of a Five-Per-Cent. Solution of Brucine.

1. I have twice applied the solution, by means of a tuft of cotton on a cotton-holder to painful *furuncles* of the external auditory canal. In both cases marked relief was noticed in from two to four minutes, which lasted for some hours, when the pain slowly returned as before. Skin in these cases not broken.

2. In cases of painful *suppurative otitis* of the middle ear (some five or six in all) the solution gave *some* relief in *all* cases; very *marked* relief from pain, lasting for a number of hours, in two cases. In these patients the solution was passed on the cotton tuft down to the fundus of the canal, and the raw and often bleeding surface carefully and thoroughly mopped.

3. I have used the brucine solution some scores of times in *sensitive conditions* of the auditory canal to render the use of instruments painless. In about half the cases the patients volunteered the statement, "It don't hurt as much now," while in the other half no results of any importance were obtained, sensitiveness being in no way lessened.

¹ First practised by Debove in 1884.

4. Brucine, in my hands, has proved most useful in lessening or entirely abolishing the pain and burning caused by applications of iodine, nitrate of silver, sulphate of copper, and the like to the mucous membrane of the throat and nasal passages. I have repeatedly used it in these cases, perhaps nearly fifty times, and in almost every case relief was noticed, and in the majority of the cases pain and irritation were at once overcome.

5. In one or two cases of *burns* the solution has proved valueless.

6. Painted along the line of incision before opening a shallow abscess, it did no good whatever, the patient suffering as much as usual.

7. Used on the external surface of the body, the five-per-cent. solution has proved of no value whatever in my hands.

Speaking generally, I do not consider the brucine salt equal in its local effects to the muriate of cocaine. Though more lasting, it is much less reliable, nor does it seem to be so readily absorbed.

In some two or three instances, after liberal applications of brucine to the nasal cavities, patients complained of having felt wildly "nervous" for some hours afterwards, evidently from the strychnine-like effects of the drug. In no other instances were the slightest toxic effects noted, although as much as $\mathfrak{M}$ v of the solution has been repeatedly used in the middle ear and nasal fossæ.—*Therap. Gazette*, January, 1886.

Herschel (G.) on Papain and its Use in the Treatment of Dyspepsia.—*Chronic Stomach - Catarrhs of Children.* I have found rapidly improve with the following prescription: $\mathfrak{R}$ Papain (Finkler), gr. $\frac{1}{2}$ - gr. j; sacch. lactis, gr. j; sodii bicarb., gr. v. *M.* To be taken after every meal. It is also advantageous to give a drop or two of tincture of nux vomica immediately before the meal in a little water. The papain probably acts by dissolving the mucus, and thus facilitating the absorption of the food.

In Acid Dyspepsia. I usually order it in the following manner: $\mathfrak{R}$ Papain (Finkler), gr. ij; sacch. lactis, gr. v. *M.* To be taken an hour after meals with the following draught: $\mathfrak{R}$ Sodii bicarb., gr. xv; glycerin. acid carbolic, $\mathfrak{M}$ viii; spirit. ammon. aromat., $\mathfrak{M}$ xx; aq. ad $\frac{3}{4}$ iss. *M.* Fiat haustus. It appears that, taken one hour after a meal, a smaller dose of papain is

required to produce the same result than if taken with the food.

In Cases where Severe Gastric Pain Coming on Shortly after Eating is the Prominent Symptom, I have tried the drug twelve times. Complete relief was given in ten, one case was partially relieved, and one completely failed to derive any benefit.

Apart from its internal use, papain will probably come into extensive use as a peptonizing agent, to prepare ready digested food and enemata in the way in which pancreatin and pepsin are used at present.—*Br. Med. Jour.*, April 3, 1886.

Jolyet and Bergonié on the Antiseptic Action of Bismuth Subnitrate.

—Tubes of bouillon containing the subnitrate in proportions varying from two to twenty per cent. remained clear for eight days. After this the surface of the bouillon became covered with mould, the interior still remaining clear. Similar experiments made with Sydenham's laudanum showed it to be much less energetic as an antiseptic than bismuth.—From *Four. de méd. de Bordeaux*, in *Paris médical*, March 27, 1886.

Linarix on Myrtol.—Myrtol has only been, hitherto, studied as a curiosity. Dr. Linarix, in his doctoral thesis, *De l'Emploi du Myrtol*, gives a complete account of the properties of this substance. Myrtol is both an antiseptic and a disinfecting agent. By its presence, it prevents the decomposition of fermentative and putrescible organic substances; applied to the skin, it does not produce the slightest irritation, if the epithelium be intact. If there be a slight abrasion, a few drops produce a very trifling burning sensation, which quickly goes off. Myrtol stimulates the digestive faculties; all who use it find their appetite increased. In small doses, it acts as a sedative. It is eliminated by the lungs and kidneys, and has also a powerful balsamic action, but is more easily tolerated than most balsams. Its use is not followed by dyspepsia, nor by any of the other troubles attending the use of balsams in general. Dr. Linarix says that myrtol does not produce the same result at all periods of the affections of the respiratory system: in subacute and chronic catarrhal affections, it should be administered when fever has subsided; then the sputa become less abundant, also less purulent. Six capsules daily, each containing fifteen centigrammes of myrtol, form a moderate dose, which should

be taken before meals.—*Brit. Med. Jour.*, April 10, 1886.

Kinnicutt (F.) on Nitro-glycerine in the Treatment of Chronic Nephritis.—His investigations, so far as they have been carried, permit of the following summarization :

1. That in nitro-glycerine, given in small doses and frequently repeated, we possess a powerful agent for lowering the increased blood-pressure which is very constantly associated with the development of uræmic symptoms.

2. That it has the power to control or relieve many of the paroxysmal disturbances of the nervous system which are included under the general term of uræmia ; of these, headache and asthma are especially benefited by its use, the relief being more marked and continuous than that obtainable either by opium or chloral.

3. That its influence upon the daily excretion of urine and serum albumin in parenchymatous and interstitial nephritis is apparently to increase the former and diminish the latter.

4. That in the systematic and prolonged use of nitro-glycerine, in appropriate doses, in chronic nephritis, we possess a means of obtaining more or less continuously a lowered blood-pressure, of often averting or relieving critical conditions, and thereby prolonging life.—*N. Y. Med. Record*, April 17, 1886.

Jacobowitsch (W.). The Action of Antipyrin on the Temperature and Tissue Changes of Febrile and Healthy Subjects.—The author studied the effect of antipyrin on both sick and healthy children. The average dose employed was three to four grammes. In addition to the customary fall of temperature, there was noticed a considerable diminution in the daily excretion of urine. A quantitative analysis showed that the urea, uric acid, chloride of sodium, phosphoric and sulphuric acids were all lessened in amount. The urine became normal forty-eight hours after the last dose of the medicine was taken.—*Fahrb. f. Kind.*, xxiii. S. 373 ; *Cent. f. d. med. Wis.*, March 27, 1886.

Musser (J. H.) on the Influence of Age on the Dosage of Nux Vomica, with Some Remarks on its Therapeutics.—Going over the notes of some fifty cases, I find that at from 15 to 40 years of age 45 drops or more of the tincture was almost invariably well borne.

After 40 years it was the exception to be able to increase the dose over 35 drops without causing some disagreeable symptoms. In all my cases extreme susceptibility was not observed. Six had apparently no influence on the size of the dose.

One of the patients, aged 24, took 200 drops three times daily with most decided benefit. To another, aged 16, 125 drops were exhibited without experiencing any bad effects. On the other hand, a male, aged 60, could take but 20 drops, and not one over 50 could get beyond 35. Patients aged 16, 24, 28, 35, and 40 took 40, 55, 30, 45, and 45 drops respectively before any therapeutic benefit could be seen.

At first sight it would appear that the above were unusually large doses. When one remembers that there is about $\frac{1}{100}$ of a grain of strychnine in five minims of the tincture of nux vomica, the dose seems not so great.

The following are some of the conclusions which may be drawn from the above statements :

1. The effects of nux vomica are in inverse proportion to the age of the patient ; the susceptibility increases with the age.

2. The usual doses of the tincture indicated in the text-books are inadequate for many practical purposes, and do not represent the usual dose of strychnine.

3. It is a powerful and rather transient stimulant.

4. The best therapeutical effects can be secured in many cases only by pushing the drug almost to the physiological dose.

5. The system soon becomes accustomed to its use, and the dose must be increased.

6. The good effects in dyspepsia are largely due to its power to heighten reflex excitability.—*Therap. Gaz.*, Jan., 1886.

Bókai (V.) on Paraldehyde as an Antidote to Strychnine.—The experimenter found that in frogs the toxic effects of gr. $\frac{1}{10}$ – $\frac{1}{5}$ of the nitrate of strychnine, were entirely prevented by the administration of gr. 1 to gr. 3 of paraldehyde. In guinea pigs, narcotized with paraldehyde, toxic doses of strychnine were well borne. In animals to which 45 to 60 grains of paraldehyde had been given, gr. $\frac{1}{10}$ to gr. $\frac{1}{2}$, did not kill. He asserts that, while paraldehyde saves strychnine poisoned animals, strychnine will not avert the narcotic action of paraldehyde, as the physiological antagonism is not perfect. In conclusion he advises its administration in doses of 80, 150

or 180 grains in cases of strychnine poisoning in man.—*Pest. Med.-Chir. Pres.*, 1885, No. 43, *Cent. f. klin. Med.*, April 10, 1886.

Substchaninoff (G. A.) on the Treatment of Pointed Condylomata with Thujæ Occidentalis.—In two or three days, after being painted with the tincture of thujæ, pointed condylomata shrivel and fall off. When, for any reason, radical treatment, with cutting instruments, is impossible, this method, because of its reliability and quickness, is preferable to all other caustic methods.—*Russkaja Medicina*, 1885, No. 45, and *Cent. f. Chir.*, March 6, 1886.

Allen (C. W.) on Some of the Uses of Pyrogallic Acid in Dermatology.—The effects caused by its absorption are probably due to the great affinity of the drug for oxygen, or as the pyrogallic oxidizes into carbon monoxide, carbon dioxide, acetic acid, and probably other substances these same reactions may take place within the economy, in the presence of the alkaline blood, and the toxic effects be due in a measure to them, as well as to the abstraction of oxygen, and it is indeed to the removal of oxygen from the blood that many of the symptoms may be referred. Personne says that the effects produced are the same as in poisoning by phosphorus, and it is, in a measure at least, due to its deoxidizing properties that the injurious effects of phosphorus are due.

The principal symptoms found in these cases are: chill, rigors, or shivering, preceded possibly by malaise and headache, and coming on rather suddenly, at a variable time from the beginning of the applications. There are usually diarrhœal stools and vomiting of glairy mucus. The patient soon sinks into a state of collapse with sunken eyes, pallid or cyanosed appearance of the lips, a peculiar greenish hue of the skin, elevation of the pulse-beat and temperature, and acceleration of respiration with dyspnœa. The urine becomes dark-brown or black, of high specific gravity, and usually contains hæmoglobin and albumin. The reflexes are diminished. In the early stages there is marked insomnia and restlessness. Toward the close there may be coma. The dyspnœa is due to pulmonary œdema and congestion of the lungs. There may be a condition of general anasarca. The symptoms persist only so long as the poison is being eliminated.

Therapeutically we find that in pyrogallic acid we have a drug valuable, not only in psoriasis, for the treatment of which affection it was first introduced, but furnishing one of the means of combating other and more serious diseases. That its application is not without dangers both to the general system and to the body's healthy surface. That it is capable of producing death in the one case, and extensive sloughing in the other. That although the application of the drug in its full strength as a powder is efficacious, it is attended with some disadvantages. The crystals should be powdered before being applied.

For many cases a well-made fixed dressing, which adheres nicely to the part, possesses advantages which make it preferable to other applications. This is especially true of lesions of the face and hands.

The intensity of the effect produced appears to be in a measure proportionate to the thickness of the layer of fixed dressing painted upon the parts.—*Four. Cut. and Venereal Disease*, Jan., 1886.

Limousin (Pharmacist) on Hypodermic Flasks.—To prevent the deterioration of solutions for hypodermic use, so annoying to physicians, M. Limousin employed small flasks, holding about twenty minims, with a long slender neck. These he sterilizes by Pasteur's method, fills with various medicaments, and seals by passing the neck through a flame. The solutions are made with water boiled and passed through a Chamberland's filter.

When the solution is wanted he breaks off the neck of the flask and draws the contents into the hypodermic syringe. In this way he has kept solutions of ergotine over a year, while the same solution in a stoppered bottle spoils in five or six days.

Morphine solutions keep perfectly, only acquiring a yellow tint when exposed to the light.—*Bull. gén. de thérap.*, April 15, 1886.

Martin (F. H.) on Palatable Prescribing.—The writer summarizes the means by which the regular profession can administer, and obtain all the effects of, their remedies without offending the most delicate palate under the following heads:

1st. Administration of the *alkaloids, neutral principles*, and other drugs of *small bulk* in *gelatin- or sugar-coated granules*.

2d. Administration of *solid extracts, crude drugs* of *small bulk*, and the various salts

in pills of gelatin or sugar and gelatin capsules.

3d. Administration of tasteless tinctures and other tasteless liquids alone or mixed in water.

4th. Administration of the oils, oleo-resins, oleates, and drugs soluble in oils in elastic capsules.

5th. Administration of acids well diluted in sweetened and properly-flavored water.

6th. Administration by hypodermic injection, by suppositories, by enemata, and by inunction.—*Therapeutic Gazette*, Jan., 1886.

Blackader (A. D.) on Erysipelas in Infants Treated with White Zinc Paint.—Brief reports of the cases were given; the last two of which had been treated by the application of white zinc paint over all the erysipelatous surface, in the manner recommended by Mr. Barwell with white lead. The same advantages were claimed for the zinc as had been for the lead, without danger of absorption of any poison which, in infants, was perhaps to be feared with the latter. These were immediate relief to pain and restlessness, followed rapidly, as a rule, by subsidence of pyrexia and arrest of the disease. The fact that erysipelas was a constitutional and not merely a local disease was not overlooked; but it was contended that if by these local measures we moderate and assuage the local inflammation, we, at the same time, control at least some of the factors in the systemic disorder. Special advantages were claimed for it in infants. It is easily applied, drying quickly, and forming a complete dressing by itself, which cannot be soiled by the secretions, nor easily rubbed off by the restlessness of the infant. If desired, some disinfectant may be added. Soap and warm water readily remove it after the attack is over.—*Can. Med. Record*, 1886, p. 448.

Fanning (G. T.) on Morphine in the Treatment of Convulsions of Infants.

—A girl, two years of age, when first seen, had been in rigid convulsions for about two hours. Potassium bromide and belladonna were given at short intervals for nearly three hours without relief, when it was determined to try morphine, and a dose of one eighth of a grain was accordingly given. In about half an hour the convulsions stopped, and the child stopped breathing at the same time. Artificial respiration was at once begun, and kept up for nearly an hour, at the end of which time

natural breathing began again. The second case occurred in a boy, two and a half years old. Supposing the convulsions to be due to intestinal irritation, Dr. Fanning ordered an emetic and an enema, and gave chloroform to relax spasm. The convulsions ceased, and the writer went away, but was recalled in about an hour, the messenger stating that the child was worse than ever. He was found in a very rigid condition, with one pupil widely dilated and the other contracted. After an unsuccessful trial of chloroform, one thirtieth of a grain of morphine was given hypodermically, and in an hour one sixteenth of a grain more. The pupils both became contracted, the breathing was slow and stertorous, but the convulsions continued on one side. The chloroform inhalations were continued for about two hours, when improvement occurred very slowly, and the child finally recovered.—*N. Y. Med. Record*, April 24, 1886.

Valenzuela on Inhalations of Nitrogen.—In pulmonary tuberculosis, in chronic bronchial and alveolar catarrh, and in essential and symptomatic asthma, the results have been most conclusive. The inhalations must be given four or more times in the twenty-four hours, and the nitrogen should be mixed with a certain quantity of air. In tuberculosis, the progress of the disease is arrested, and the existing lesions repaired, if one may judge by the disappearance of the symptoms and physical signs. The following case is an example. A servant girl, aged twenty-three, was admitted, with cough, dyspnoea, want of appetite, wasting, and sweats. There was dulness in the left subclavicular region and supraspinous fossa. Vesicular murmurs were absent; there were moist and subcrepitant râles, and cavernous breathing. On the right side was harsh, rough, exaggerated breathing. The sputa contained elastic fibres. She had night-sweats. The patient began treatment on July 10th, and on Sept. 3d was discharged, with precussion sounds and vesicular murmur everywhere nominal, the râles and cavity-sounds having quite disappeared. Three months afterwards she was found to be in perfect health.—*El Siglo Medico*, Jan. 24, 1886. *Lond. Med. Rec.*, April 15, 1886.

Dehenne (A.) on the Subcutaneous Use of Ergotinine in Diabetes and Albuminuria.—The author claims to demonstrate:

1st. That ergotine or ergotinine subcutaneously will cause the temporary and often the permanent disappearance of the glycosuria, polydypsia, polyuria, emaciation, and weakness of diabetes.

2d. That these symptoms disappear in a regular order—the polyuria and polydypsia disappear after 5–8 injections; the glycosuria lessens after the second or third injection, and disappears after the tenth or twelfth.

3d. That the glycosuria reappears if the treatment be stopped too suddenly.

4th. That the disappearance is permanent after six or eight weeks of treatment.

5th. That the injections are entirely harmless.

6th. That by this treatment, diabetics can be prepared for any surgical operation, particularly cataract.

7th. The freedom of this treatment from digestive disturbances.

He injects six to ten drops—sometimes more—daily. — *L'Union médicale*, April 1, 1886.

Henning (J. A.) on Chionanthus Virginica.—This is a shrub or small tree growing along creeks or rivers, mostly in the Southern States. Leaves obovate, lower surface downy; flowers, loose panicles in early summer; petals about an inch long, and the fruit blue-purple, with a bloom; common name, *fringe-tree*. The bark of the root is the only part employed. It is made and used in the form of a fluid extract. Dr. Justice has found saponine in it, but the plant has not come into general use.

To simply say that a good article of the fluid extract, given in doses of half to one fluid drachm two or three times per day, is an aperient, cholagogue, diuretic, and an alterative, would but imperfectly describe its physiological effect in the human system. My experience warrants me in saying that this remedy is one of the best in jaundice that I have ever prescribed. Chionanthus is indicated in all cases where there is a yellow, jaundiced condition of the skin. While it is but a feeble hepatic stimulant, I think it is one of the most reliable remedies in congestion of the portal circulation that we have. It also seems to possess same diaphoretic and diuretic action.

If the liver is torpid, other hepatic stimulants should be used, such as podophyllin or leptandrin. The following prescription is the form in which I use this remedy:

℞	Ext. fld. chionanthi	ss. i.
	Podophyllum	3 i.
	Potass. acetat.	ss.
	Aquæ, q. s. ad.	iv. M.

Sig.—Teaspoonful every three to six hours.

—*Therap. Gaz.*, April 15, 1886.

Fellner on the Physiological Action of Some of the Preparations of Hydrastis Canadensis (Golden Seal).—

Dr. Fellner (*Medizinische Jahrbücher*, 1885) has investigated the action of hydrastis on the blood-vessels, the heart, and the uterus, being induced to do so by the excellent results of Schatz, of Rostock, in 1883, from the administration of the drug in metrorrhagia and menorrhagia. The experiments were done on dogs and rabbits, the drug being given by injection into the veins, skin, or rectum, and by the mouth. The action by these various modes of administration was found similar, variations occurring chiefly in degree. After the injection of a large dose of the liquid extract (3 iss. to 3 ii.) into the external jugular vein, there was rapid rise of blood-pressure, followed by a fall; then another (slighter) rise, also followed by a fall. At the summit of the first rise, there was slowing of the pulse, which persisted; if the dose were repeated, the pulse became quickened, irregular, and finally stopped. The rise of blood-pressure is ascribed to a contraction of the arteries, from excitation of the vaso-motor centre; the fall, to a dilatation of the vessels. This is proved by the effect of injecting the drug after section of the splanchnics, of the cervical cord, and of the depressor nerve in the rabbit. The first slowing of the pulse, which accompanies the primary rise of pressure, is removed by section of the vagi; but afterwards the heart becomes slowed, showing that the drug acts on the heart itself—the author concludes, on the nervous centres of the organ. The action on the uterus was investigated both by inspection and by the graphic method, the horns of the organ being connected with the vertical arm of a right-angled lever writing on a drum. The results obtained, of which tracings are given, are that the uterus contracts when the blood-pressure rises, becoming also anæmic; the contraction and anæmia last as long as the heightened pressure; and then relaxation and congestion occur. With the graphic method, it was demonstrated that, following each injection of the drug, the uterus contracted, both the body and

the cornua. Both of the active ingredients of *hydrastis Canadensis* acted in this way on the uterus: phosphate of berberin (one-per-cent. solution) and hydrochlorate of hydrastin (one- and ten-per-cent. solution) were used. The effect of these alkaloids on the blood-pressure and heart was not investigated.—*Lond. Med. Record*, April 15, 1886.

TOXICOLOGY.

Langhaus on the Pathological Anatomy of Subnitrate of Bismuth Poisoning.—The subnitrate of bismuth was suspended in water or glycerine and administered hypodermically to guinea-pigs. The organs affected were the kidneys and intestines. In both deposits of the drug are found in the tissues which are in an advanced state of necrosis and the seat of circumscribed suppuration. The nephritis implicates the capillaries of the glomeruli and the epithelium of the urinary tubules of the first order. The intestinal lesion commences in the cæcum and consists of a destruction of the mucous membrane throughout the large intestine, together with ulceration and suppuration.—*Cent. f. Chir.*, April 10, 1886.

Runyon (F. J.) on a Case of Poisoning from Nutmeg.—The patient said she had a slight pain in her stomach in the morning, and at about eleven o'clock she took a nutmeg and a half. At twelve she was feeling a little stupid and took a glass of sweet milk, but threw it up in about ten minutes.

The doctor was called to see her about 4.30 P.M. He found her sitting up and looking a little sleepy, but otherwise he could discover nothing unusual. When asked how she was complaining she replied that she was suffering from a headache; and when asked if she was subject to it said she had never had it but once or twice before in her life. She complained that she felt like she was drunk on opium, and that her right side felt something as your fore-arm does when you strike your elbow. She said: "I don't know what I am doing or saying for more than a second or two at a time, and every thing I say sounds silly. My brain seems compressed, like my head was too small for it."

"She asked me if I thought she was going crazy. I told her I did not, but I

was beginning to think that one of us must be, when she mentioned the fact of her having taken the nutmegs. She came unwell that morning, and at first I thought I had a hysterical patient to deal with; but her pulse was 108 and rather weak, and she had no fever, so I excluded hysteria. I gave her a stimulant, a little bromide of potassium and a dose of salts. The next morning she was as well as ever."—*Med. World*, April, 1886.

James (W. D.) on Carbolic Acid Poisoning (?) Treated by Cocaine.—

A. B., aged thirty-five, on the evening of November 19th, took a dose of carbolic acid instead of mixture. She did not seem to have swallowed any. Her lips were blistered; the buccal and pharyngeal membranes looked coated with milk; the pupils were dilated; the pulse was uncountable, a mere running thread. She had intense pain on swallowing. Mr. James administered oil, eggs, and milk, and ordered a linseed poultice to be applied round the throat, and ice to be sucked continually. Next day she had no sleep; the pain was worse. On the 21st, the area of pain extended all over the front of the chest; her voice was hoarse; there was laryngeal pain with each breath; harsh, dry respiration was heard in the larger bronchi; temperature, 102.3°. At night, her voice had almost entirely gone; the pain was very severe. Mr. James ordered one-sixteenth of a grain of hydrochlorate of cocaine every three hours; the poultice and ice were continued. On the 22d, the patient got up, nearly free from pain; the temperature was normal; arterial tension was restored; her voice was returning. The patient expressed herself as feeling relief from every dose.—*Br. Med. Jour.*, March 27, 1886.

Vidal (E. C.) on a Case of Iodic Purpura.—

C. R., fifty years old, consulted me for a debilitated condition, with a serious case of cardiac hypertrophy. Some twenty years before he had had syphilis. I ordered him pot. iod. gr. xv., three times daily. About three weeks later I was called to see the patient for a dropsical effusion affecting the lower extremities as high as the knee, and the feet. Upon examining the inferior members, I discovered a bright red, macular eruption, ranging from the size of a pin-head to that of a split pea, persisting under finger pressure. The dorsal surface of the feet was especially affected. The patient complained at

the same time of severe pain in the thighs and top of the feet. The body at the same time offered a number of papules of an acne character. I discontinued the pot. iod., and the purpuric eruption gradually faded away. Believing that it was a case of iodic purpura, I again ordered the medicine in the same dose, his general condition having improved under it, and a week later was a second time confronted with a similar eruption. After discontinuing the iodide to resume it the second time, the purpura appeared for the third time. The patient's health at no time offered any other evidence of the toxic effect of the drug.—*Four. Cut. and Ven. Dis.*, March, 1886.

Orton (C.) on a Case of Poisoning by Eggs.—On Monday, August 10th, I saw Mrs. E., who was suffering from an acute though not severe attack of bronchitis. On the previous night she had taken an egg beaten up in a little brandy and water. Before it had been down an hour she vomited violently. On the Monday night she again took an egg and brandy, and it unfortunately stayed down and caused intense suffering, flatulence, spasms, suffocation, severe pain in the bowels, followed by diarrhœa and bilious headache, and sickness, with great prostration. This is the patient's own description. On Friday the 14th I saw her; she was better, but her tongue was furred from root to tip, all appetite was gone, and the thought of food caused nausea.

Neither the grandmother nor the mother of this patient could eat eggs, and she well remembers her mother while on a visit to her being made seriously ill by partaking of a little rice pudding made with an egg in it.

[These two cases are interesting in connection with the paper "On Poisons formed from Food, and their relation to Biliousness and Diarrhœa," in *Practitioner*, xxxv. 112.—ED.] —*Practitioner*, April, 1886.

Slater (W. B.) on a Case of Delirium Tremens Caused by Chewing Tea.—On November 10, 1879, I was summoned to see a girl who complained of sleeplessness, nervousness, and repeated twitchings of the muscles of the face and extremities, which would continue for several minutes at a time. These symptoms had been present for several months previously. Her mistress informed me that

the girl had been acting strangely for several days. She was wandering in her mind at times, and imagined people and evil spirits were about her seeking to do her harm. She had not slept for several nights, and on one or two occasions had been found at night wandering about the house. Pulse 96 and small; tongue dry and brown; eyes suffused; irregular action of the heart-weight at præcordia; sallow complexion. A dose of bromide of potassium and hydrate of chloral gave her a good rest for the night.

At 4.30 A.M. on the 13th I was again summoned to see her. Some men had found her walking about one of the wharves of our city. She broke away from them and endeavored to jump off the end of the wharf, when she was caught and taken to her home. I found her with a pulse of 110, a very dry and brown tongue, suffused eyes, no marked increase of temperature, violent delirium, and tremulous hands and arms—in short, the well-marked symptoms of delirium tremens. I found a smooth, quite hard tumor in the right iliac region, half as large again as an ordinary orange. A hypodermic injection of morphia somewhat relieved the nervous symptoms. A brisk cathartic brought away a mass of hardened fæces, followed by a large quantity of a thickish tarry-looking excreta, which seemed to be made up of tea-leaves in different stages of maceration, quite a large proportion, probably a third, being tea-leaves quite unchanged in appearance and color. Bromide of potassium and chloral in a few days quieted the nerve-centres.

October last I was once more summoned to see her. The same well-marked symptoms of delirium tremens were present. The evacuations contained a plentiful supply of tea-leaves. The patient informed me that when about seventeen years of age she went to one of the New England towns to work in a factory, and there contracted the habit of chewing tea—a habit, she stated, quite common amongst the factory girls. She thought she chewed on an average about half a pound of tea daily, and some days more. It made her feel better able to work. She had never been addicted to alcoholism, and ascribed her attacks solely to the tea-chewing. She tried to give it up, but felt so nervous and fidgety as to be compelled to return to the old habit.—*Lancet*, April 24, 1886.

MEDICINE.

Mauriac (Ch.) on the Evolution of Syphilis.—The author narrates two cases apparently showing very late contagious stages of syphilis. A man, infected nine and a half years before, married a healthy girl. Four months after marriage she began to have headache and vagrant pains followed shortly by an eruption. On examination she was found to have a large hard chancre of the vulva, a confluent roseola and crusts on the scalp. The husband stated that he had noticed, some weeks after marriage, a small lesion on the side of his tongue upon which he placed no importance. He had relations with his wife *ab ore* and in this way, it seems, infected her.

The other case was that of a man infected four and a half years before. He had been free from syphilitic manifestations of all sorts for eighteen months. He one day brought his wife to the doctor with a recent papular syphilide, a psoriasis of the hands, crusts in the hair and confluent patches about the anus and vulva.—*Gaz. des hôp.*, April 1, 1886.

Stoddard (E. V.) on Alcoholic Paralysis.—The general history of the cases observed enables us to distinguish *three* classes of cases as regards the development of the paralysis.

The *first* comprises those cases in which a true paralysis is not apparent, but a condition of paresis occurs, preceded by the prodromata manifesting disturbed sensory and motor conditions, together with the mental symptoms already indicated. This form is chiefly limited to lower extremities, though it may be accompanied by a feebleness in the upper extremities also. It is curable, though a liability to relapse exists in subsequent indulgence to excess in the use of alcohol. It is not so frequently observed as the *second* form, which is characterized by more active prodromata. The pains are more intense, and the conditions of hyperæsthesia and anæsthesia are quite marked. The paralysis is decided, and, appearing first in the lower, manifests itself subsequently in the upper extremity, though in a much lighter degree. Hyperæsthesia is quite marked, and the *tendon reflex* is abolished. Paralysis develops slowly, and its course is chronic. Lancereaux, in describing the form of paralysis, declares it to be suscep-

tible of cure. This statement is borne out by the experience of other observers.

The *third* form differs from the two preceding in the *rapidity* of its development. After a considerable period, occupied by the prodromata, the paralysis appearing in the lower extremities develops rapidly in the upper also. All the symptoms mentioned previously appear in quick succession. The patient suffers from acute pains, in which condition hyperæsthesia is rapidly succeeded by anæsthesia. The tongue is dry, diarrhœa and vomiting are frequent and uncontrollable, bed-sores occur upon the sacrum and nates, and the patient rapidly succumbs in a condition of exhaustion. The duration of this form is from six weeks to three months. The prognosis is necessarily unfavorable.

These lesions of the nervous structures, which are sometimes apparent to the unaided eye, consist of a loss of their pearly lustre and a diminution of volume, especially in the cutaneous nerves; but microscopic examination is necessary to fully define existing lesions. By this means are seen increase in the volume of the cellular nucleus, swelling of the protoplasm, breaking of the myeline, which gathers into masses and undergoes special chemical changes. The axis-cylinder is broken and ultimately disappears and, finally, the myeline is little by little absorbed until the nerve is reduced to its sheath alone, the nervous elements having disappeared. This condition is very marked in the peripheral filaments, though the trunks of the nerve show similar changes.

The *therapeutics* of this disorder are simple and resources confined, in the first place, to a change in the habits of the patient, as regards the use of alcohol, and, in the second, to improving nutrition and relieving pain by a judicious use of anodyne agents; for the latter a combination of chloral and opium has been found to be the most efficient.

The treatment of the paralysis by electricity is indicated. Galvanism has been found of service.

The faradic current has been employed chiefly for the condition of muscular atrophy, and frequent repetitions are desirable.—*Med. Press of Western N. Y.*, May, 1886.

Brissaud (E.) on Toxic Paralysis (Thèse d'agrégation).—In the chapter on treatment there are pointed out three principal indications.

1st. Prophylaxis ; by suppressing as far as possible the causes of poisoning.

2d. Elimination ; by stimulating the circulation, skin, and kidneys.

3d. Medication properly speaking ; which comprises little but the empiric use of the iodide of potassium, electricity—faradic and galvanic, and massage. Surgical interference is often needed to remedy the paralytic deformities (club-foot) occurring in the late stages of alcoholism and arsenical poisoning.—*Gaz. des hôp.*, April 3, 1886.

Money (A.) on Shoulder-Joint Friction and Incipient Phthisis.—As the first physical sign of incipient phthisis is frequently a mere adventitious sound heard over some part of the apex of the lung, and as the friction produced in the shoulder-joint, by breathing, often imitates very closely these pulmonary adventitious sounds, it is not difficult to understand how mistakes in diagnosis should occur.

I think that there are good grounds for believing that lives are sometimes rejected at insurance-offices, from a want of knowledge on this point.

The sound produced at the shoulder-joint is almost always of a dry quality, rather creaking than crepitation ; but its character varies considerably. It is difficult to prevent its occurrence in those subjects in whom it is heard ; so that fixing the joint hardly aids one much in the diagnosis. But the sound is always loudest over the joint itself, and is better conducted along the bones than along the muscles, over which it is usually faintly heard ; but in some instances it may even be audible over the pectoralis major below the clavicle. An important point in the diagnosis is the character of the breath-sound at the apex of the lung ; when mere joint-friction is heard, there is of course no prolongation or increase loudness of the expiration. This friction-sound, simulating pulmonary adventitious sounds, was first pointed out to me, and, so far as is known, was first drawn attention to, by Dr. Gowers. It is of frequent occurrence, and especially, I think, in patients who have suffered from "rheumatism." I have not heard it often in children, and less often in women than men.—*Br. Med. Jour.*, April 24, 1886.

Livezey (A.) on Sulphurous Acid in Typhoid Fever.—If this acid is given for a week or ten days in doses of three to twenty drops, according to age, every four hours, the system becomes saturated with

it and the further development of the fever poison is arrested. Dr. Wilks in one summer treated 170 cases with this acid, and only one died—an habitual drunkard.

The usual formula for adults was :

℞ Acid sulphurosi 3 ij.
Syr. aurantii 3 iij.
Aque, ad f 3 vj.

When the diarrhoea was very troublesome, sulphuric acid dilut. and tinct. of opium were added.

℞ Acid sulphurosi f 3 ij.
Acid sulphurici dil. f 3 i.
Tr. opii gtt. xx.
Syr. aurantii f 3 iv.
Aque, ad f 3 xii.

One sixth part of ether was given every four hours continuously to adults.

For young children the following :

℞ Sulphurous acid gtt. xv.
Syrup aurantii 3 iii.
Aque, q. s. 3 vi.

In severe cases attended with profuse diarrhoea, vomiting, etc.,

℞ Sulphurous acid gtt. xv.
Dil. sulphuric acid gtt. xv.
Tinct. opii gtt. ii.
Syr. aurantii 3 iv.
Aque, q. s. ft. 3 vj.

of which one sixth or one teaspoonful every four hours.

The acid was continued till the patient tasted the sulphur, and the breath emitted the odor of the gas.

When patients were seen early it was claimed that the acid *stamped out* the disease, but it was continued for a week or more, otherwise the fever returns and the patient relapses.—*Med. Summary*, April, 1886.

The Function of the Spleen.—The idea that the spleen may act mainly as a reservoir for the blood, in the intervals when the stomach is in a state of inactivity, ready at the least call from that organ to pour in a supply to meet its wants, is not new, although it is revived in a thoughtful letter on the subject contributed by a correspondent to a recent number of the *Boston Medical and Surgical Journal*. In this communication the author regards it as a reasonable supposition in view of the fact that the spleen may be wholly removed from an animal without any obvious changes in the economy taking place, that its office is solely mechanical, though of great importance, being that of a regulator of blood supply to the stomach. It seems obvious that such a regulation is necessary to an organ

subject to such various conditions—at one time the receptacle of hot drinks, imbibed at a temperature little below scalding, and, again, of large draughts of ice-cold water, etc. In the absence of some such balancing medium as is afforded by the spleen under these circumstances, it is evident that conditions of serious congestion and depletion of the stomach must ensue, with an attendant train of evils which can readily be estimated. The facts known respecting the increase of the spleen during and after digestion, and its rhythmical powers of contraction as demonstrated by modern experiments, lend support to a theory which is wholly in keeping with the most reliable observations; and in the absence of any decided information respecting its influence as a hæmatopoietic agent, such an explanation of its function may not improperly be tentatively accepted.

Hæmic Changes after Extirpation of the Spleen.—At the last sitting of the Congress of Russian Physicians, Dr. Winogradow read a paper on the above subject. He had operated on a dog which had previously lived in the yard on an irregular and sometimes insufficient diet. After extirpation of the spleen, which was performed six years ago, the animal was kept in the open air chained, on a good mixed diet and in a good kennel. Up to the present he has kept lively and in good spirits. Examination of the blood showed that in the first year after the splenotomy increase in the blood serum was noted until the year 1885, when the quantity diminished, but it again returned to the normal. The red blood corpuscles increased in the second and third years after the operation; lately they had diminished, however, and the microcytes were few in number. The specific gravity of the blood was 1054, that of the serum 1026. The quantity of hæmoglobin, which had already diminished at the end of the first year, varied a little during the later years, and had again sunk recently. It appeared noticeable that the production of hæmoglobin had diminished. At first the production was rather more active, but it always remained below the normal, and fell again latterly, from which the experimenter drew the conclusion that the compensatory activity of other organs gradually diminished, and that the dog would eventually die of gradually increasing deficiency of hæmoglobin, as, notwithstanding abundant food and fresh air, he

was steadily losing weight.—*The Medical Press*, March 31, 1886.

Dana (C. L.) on Some Certainties in the Therapeutics of Epilepsy.—The writer expresses his views regarding the therapeutics of epilepsy as follows:

I. Diet, exercise, and proper hygienic treatment, including baths, rank above all other single therapeutic measures.

Epileptics should live on plain, easily digestible diet, containing a preponderance of fat. A special meat diet, or milk diet, or farinaceous diet, is not injurious nor curative. It all depends upon the patient. A meat diet may be best if the patient is lithæmic or has a fermentative dyspepsia. A milk diet is especially useful for children and erythritic women. The meals should be small, and, in cases of voracious appetite, four, five, or six light meals a day should be given. No heavy meal should be taken within four hours of sleeping. Indeed, no heavy meals should ever be taken by epileptics.

II. The bromides take the second rank in the treatment of epilepsy.

III. The best bromides are those of potassium, sodium, ammonium, and hydrogen (hydrobromic acid); possibly we may add nickel.

IV. Bromides should be given in daily doses of 3j, increased gradually until the attacks are suppressed, or the dose reaches 3iv to 3j daily.

V. When the fits are suppressed, the bromides should be carefully reduced, but never entirely stopped for at least two years after the last fit.

VI. In most cases, and especially in nocturnal epilepsy, an extra large dose of bromide should be given at night.

VII. It is very important that bromides should be chemically pure, that their use should be continued a very long time, and that their depressing effects should be offset with tonics and all possible roborant measures.

VIII. The best non-specific adjuvants (drugs) to the bromides are potassium iodide (in syphilitic epilepsy), potassium bicarbonate (in lithæmic and rheumatic states), carbonate of ammonium, the hypophosphites, arsenic, iron, and quinine.

IX. The other chief adjuncts to the bromides are diet, exercise, a regular life, hydrotherapy, counter-irritation on the neck, and, in the line of drugs, zinc, belladonna, strychnine, valerian, and the nitrites.

Other drugs which sometimes help the bromides are digitalis, *Cannabis indica*, ergot, conium, chloral, the salts of copper, picrotoxin, and borax.

X. The best substitutes for the bromides, when these do no good or do harm, are belladonna, zinc, strychnine, glonoin, borax, and alternatives.

XI. Bromides stop the fits in from five to ten per cent. of cases, oftener if given to young children, and if given in cases that develop after twenty-one.

Bromides lessen the fits in from eighty to eighty-five per cent. of cases.

Bromides do no good, or do actual harm, as regards frequency of attacks, in from five to ten per cent. of cases. Bromides do no actual good to the patient in a much larger proportion of cases.

XII. To prevent bromide acne, arsenic, calcium sulphide, baths, and diuretics are the best measures, or hydrobromic acid may be used.

To prevent bromidization, adopt all possible roborant measures: use salt-water baths and regular physical exercise, give black coffee, caffeine, cocaine, mineral acids, strychnine, bitter tonics, cod-liver oil, or give large doses of the bromides every three days only.

In all cases dilute the bromide preferably with carbonic-acid water or Vichy in the proportion of six ounces of water to a scruple of the drug.

The continuous administration of an alkaline bromide in an alkaline water sometimes affects the bladder, and then the bromide can be given dissolved in hydrobromic acid.

XIII. The remedies that are especially useful in *petit mal* are, after the bromides belladonna, glonoin (?), *Cannabis indica* (?), cod-liver oil, ergot (?), counter-irritation at the back of the neck, and cold spinal douches.

XIV. For epilepsy in children, besides the bromides it is advisable to employ a milk diet, rest, and oxide of zinc. Belladonna, if tried, should be given cautiously.

XV. For adults and chronic cases, use the bromides, belladonna, iodide of potassium, and ammoniated sulphate of copper.

XVI. For nocturnal epilepsy, increase the dose of bromide at night, and add chloral or digitalis. Give also, if needed, strychnine. Raising the head of the bed or making the patient sleep in a chair at night are measures to be tried.

XVII. For hysterical and erythritic cases, with or in place of bromides, give a diet of milk and vegetables. Try turpentine, valerian, or zinc. Belladonna is usually contra-indicated.

XVIII. Counter-irritation by means of blisters, issues, and setons at the back of the neck, is a useful adjunct to treatment, especially in *petit mal* and in cases with mental derangement.

XIX. For the status epilepticus, give large enemata of chloral, and use emetics and purges. Venesection is often efficacious, morphine is dangerous, chloroform is only palliative, and nitrite of amyl is of little value.

XX. To prevent impending attacks, the best remedy is nitrite of amyl, which may be carried in a phial filled with cotton. Inhalation of chloroform or ammonia, the internal administration of ammonia, spirits of lavender, or alcohol, a sternutatory, and pressure on the carotids—all are measures which sometimes stop the attack.

XXI. Alterative and habit-breaking drugs, such as mercury, iodide of potassium, arsenic, antimony, are useful in epilepsy.

XXII. No surgical measures upon ovaries, uterus, testicles, cranium, or elsewhere will cure an established long-standing epilepsy except in rare cases. Such operations, if done, should be undertaken early, before the patient has had an excessive number of fits.

Ligaturing the vertebrae has already killed two patients, and has no standing in the surgical therapeutics of epilepsy.

Oöphorectomy is not indicated in true epilepsy.

Ligaturing the carotids is a measure fallen into disuse.

Trephining in traumatic cases of epilepsy has cured less than one half of patients.

Trephining cures some cases even when there is no depression of bone.—*N. Y. Med. Four.*, April 24, 1886.

Radcliffe (S. J.) on Diphtheria with Appearance of Exudation only on the Gums, and Occurring Suddenly after Rupture of a Sewer-Pipe.—The patient was a maiden lady, about forty years of age, in good circumstances, stout figure, fleshy, well nourished, but physically not strong; had suffered for some years from catarrhal troubles of the air-passages and weak lungs, and she believed she had a tendency to tuberculosis from heredity.

She had suffered for several days before I saw her with sore throat, difficult deglutition, huskiness of the voice, some fever, and marked debility or general malaise. She was not one to yield to light ailments, but in this instance she felt herself ill and that she needed medical advice at once,—her symptoms and the mode of attack being, as she supposed, somewhat peculiar.

I was called to see her for the first time May 1st, and upon the first casual examination her outward appearance seemed to indicate some eruptive disease. I found her temperature 101.6°, pulse 112, her face quite flushed, which she said was not unusual with her in fevers, tongue coated, her urine a little cloudy, passed in moderate quantities, bowels loose, with anorexia and thirst. The gums, fauces, soft palate, and pharynx were deeply red and swollen, with slight oedema of the uvula and soft palate, roughness of voice, and constant desire to clear the throat.

Rhinoscopic and laryngoscopic examinations showed deep redness of the entire naso-pharyngeal tract, with puffiness of the entire mucous surface, the efflorescence tapering off by gradual extension into the larynx, and involving somewhat the vocal bands. The mucous membrane was dry, the follicles flattened from distension of the surrounding parts, with scarcely an elevated point by which they might be distinguished or isolated; the inflammatory condition extending also into the posterior nares, impeding free nasal respiration.

The second day the pulse increased to 128, and the temperature rose to 103.6°. The patient was very nervous and restless, and had had but little sleep. She complained very much of her throat, and particularly of her mouth. She could scarcely allow me to touch it for examination. On drawing back the cheeks from the gums I discovered a line of grayish-white false membrane embedded and filling up the space between the cheeks and alveolar processes, beginning at the last molars behind on each side, and extending anteriorly, nearly meeting in front, or quite as far as the lower canine teeth. The membrane was tough and adherent, and could not be removed by forceps or a soft napkin gently applied in the grasp of the fingers. If lifted from its bed and pulled it would stretch, but its tenacity was such that it would not yield to moderate force. No other evidence of membranous deposit could be discovered

by careful examination by the mirror either on the fauces, tonsils, or in the pharyngeal space. The mucous surfaces were perhaps a little duller in hue, but the voice was still more husky, and at times without tone, amounting almost to aphonia.

On the ninth day of treatment the pulse was down to 98, temperature 100.3°, and the membrane had nearly disappeared.

On the fifteenth day convalescence had not been shown in so marked degree as desired, though there had been great improvement in the past twenty-four hours. She still remained in bed, and complained of great prostration. The line of inflamed surface from which the membrane had been detached was raw, and required some effort to prevent the contiguous surfaces from adhering. Pledgets of cotton in carbolized oil had to be inserted to keep the parts separated.

On the eighteenth day the patient had so far recovered as to require no further special treatment.

Very great interest is attached to this case, besides its novel appearance, from the fact of its sudden supervention upon a known local cause. A sewer-pipe burst in the adjoining dwelling, flooding the cellar of that house, and the effluvia penetrated the walls and contaminated the air of the house in which the patient lived. Two days after this occurrence she was taken sick, and this period was the beginning of the illness that prostrated her.—*Phil. Med. Times*, March 6, 1886.

Boarman (C. V.) on Jaundice Following Concussion of the Brain.

A laborer, æt. thirty, lost his balance and fell a distance of thirty feet, striking upon his head; tearing the scalp from and exposing for several inches square the vertex of his skull; he also bruised and lacerated his forehead in several places. His body and limbs were also bruised. I found him in a sitting posture, apparently dazed; would answer questions in monosyllables after their repetition in a loud voice, was spitting blood and his nose bleeding.

The next day I found him intensely jaundiced, his sclerotics stained, urine loaded with bile-pigment, and all other symptoms indicative of icterus. His face was terribly swollen and as yellow as saffron, the bruises and lacerations of course adding to the above abnormal appearance. I removed the stitch from the scalp-wound, which had united by first in-

tention. His other injuries, notwithstanding his jaundiced condition, were doing well; he was still spitting up some blood, but not enough to cause any alarm. I ordered a mercurial purgative, after the action of which I placed him upon nit. muriatic acid dilut., at the same time, of course, regulating his diet, forbidding the fats, oils, etc. The purgative acted well, bringing away a large amount of black grumous matter, no doubt partially digested blood, and fæces. He felt considerably relieved after his bowels acted, and left the bed. His condition very much improved, the jaundice rapidly disappearing, and the swollen and bruised parts resuming their normal condition.

I look upon the above case as rare, as in the majority of cases the physician is able to trace the disease to obstructions either existing in the intestinal canal or common duct, whereas in the above the solution of the difficulty is hard, unless we accept the theory advanced by Murchison, that concussion of the brain produces jaundice by interfering with or deranging the normal metamorphosis of bile by nervous influences.—*Four. Am. Med. Ass'n*, March 28, 1886.

The Treatment of Pertussis.—I would suggest that the carbolic acid, or any thing else which is used, should be in the form of a spray. The carbolic acid may be very successfully given by means of an ordinary steam spray, simply allowing it to be diffused through the apartment. A solution of 1 in 20 will be found very suitable, and this should be directed towards the patient's face and as near the face as may be found agreeable. By this plan no internal drugs should be necessary, so far as the pertussis is concerned. This system, if judiciously carried out, ought to cut short any attack in an individual, and it will at the same time act as a disinfectant generally. These remarks so far have a special bearing on pertussis, but they will be found equally applicable in many other diseases, such as measles, scarlatina, croup, diphtheria, and phthisis, or any other affection of the air-passages.—Geo. C. Richardson, in the *Lancet* for Jan. 30, 1886.

Professor Monti's system of treatment was as follows: Inhalations—through a modified Seigler's vaporizing apparatus—of carbolic acid (1-per-cent. solution) or benzoate of sodium (5 per cent.) four times during the day. Internally, he administered

one or other of the following powders in milk every two hours, the dosage being proportioned to the age of the child—viz.: muriate or tannate of quinia, benzoate of soda, and white sugar. He found the tannate the most agreeable salt of quinia to administer to children. The duration of the cases treated as above averaged twenty-one days; no doubt some extended longer, but they could always be accounted for by the development of complications. I may also add that in no case treated with carbolic acid were symptoms of poisoning found.—*Lancet*, Jan. 23, 1886.

By the local application of alum in glycerine to the pharynx and upper part of the larynx, the expiratory spasms were lessened in frequency and violence in a large percentage in recent cases. No doubt alum acts by coagulating the albumen of the mucus of the tissues, and thus shielding the parts, which are in a state of intense hyperæsthesia from irritation and consequent reflex action; also by its astringent action limiting the blood-supply, and so relieving the hyperæmia often present. The alum and glycerine is not unpleasant to take, and a little is placed on the child's tongue several times during the day and night, and if this does not seem sufficient the back of the pharynx and upper part of the larynx are carefully brushed over night and morning with the same application. This proceeding does not interfere with the treatment of complications which are generally present in cases of any duration. Every one is aware how important it is, in rickety children especially, to stop the spasms if possible, or how quickly such patients will die of convulsions. It has occurred to me that the local application of cocaine would prove even more effectual than alum in these cases, and would not require to be so frequently applied.—A. Woodman-Dowding, in the *Lancet* for Feb. 27, 1886.

Sturges (O.).—Can Pneumonia Occur as the Direct Result of External Violence?—An ill-nourished, pigeon-chested child, aged eleven, dirty and neglected, was admitted Jan. 9th. He was much collapsed, the face pale, and extremities cold and clammy. The breathing was very shallow and rapid; respiration 50. Pulse 176, regular and very compressible; temperature 103°. Lips and tongue dry and cracked. Though drowsy and indifferent, he could yet answer questions, and when

moved gave sign of pain in the right chest. There was no tenderness, however, at this place, and no bruising anywhere. When left undisturbed the breathing became slightly stertorous. On physical examination, a patch of impaired resonance was made out below the right scapula and here the breathing was faint and the bronchial and the vocal fremitus exaggerated. There were rhonchal and sibilant sounds generally throughout the chest, but nowhere crepitation. From such physical and general signs it was concluded that the child had pneumonia in an early stage; but so grave was the prostration and so enduring, notwithstanding free stimulation, as to suggest that there must be something more, as yet unseen, which would be presently revealed. The history obtained, partly from the patient and partly from his mother, an inaccurate, unintelligent woman, was to the following effect:—On the day before admission the boy went to school as usual. Between three and four in the afternoon he came home complaining that while on his way to meet his father, a big boy who happened to be passing had hit him a severe blow with his fist on the right side of the chest. He walked home with difficulty, perhaps a mile, feeling the pain, which movement seemed to aggravate. He had also headache and a sensation of nausea, and it was observed that he would restrain cough owing to the pain it gave him. On reaching home he rapidly grew worse, and, after a restless and feverish night, was brought to the hospital early next day in the condition already described. On a rough calculation some fourteen hours may have elapsed between the time of the blow and the time of admission, but so far as could be gathered only a very short interval between the assault and the appearance of serious symptoms. The apparent origin of the symptoms was sufficiently remarkable—especially, as will be presently seen, when these had fully developed—to make strict inquiry desirable as to the child's previous health; and accordingly, Dr. Thomson, by dint of much questioning, succeeded in eliciting from the mother, on her second visit, some important additions to her original statement. These were to the effect that the boy had "shivered a little two days before the blow"; that he had complained of his throat; and that the mother, who was far from being an anxious observer, had noticed that he

"looked ill," and told him to remain at home; and, finally, that on Jan. 5th, three days before the blow, he had been out in the snow all day and got wet through. The after-progress and termination of the case may be dismissed in a few words. The day after admission all the characteristic signs of consolidated lung became apparent as regards the upper third of the right side. Prostration continued; the temperature on the third day reaching 104°. Then came a critical fall of six degrees on the fifth day from admission, and along with it all serious symptoms vanished, and a few days later the boy was convalescent. The crisis, it should be observed, corresponded with the sixth day of illness reckoning from the blow, with the eighth reckoning from the shivering, and with the ninth reckoning from the wetting.

The sum of my contention comes to this. Pneumonia does undoubtedly sometimes follow injury, whether to the chest or elsewhere. In some instances the disease is not really caused by the injury, but only brought to light through its agency; in others it is its indirect consequence—due, that is to say, not to any immediate harm done to the lung, but to nervous shock which, whether it arise from injury or over-fatigue or any other cause, produces a condition of the system favorable to the development of pneumonia. Shall we say, then, that bodily injury is a predisposing but not an exciting cause of pneumonia? It may be so. But as a matter of fact, and notwithstanding that in a country like ours there is generally "weather" to appeal to, the exciting cause often escapes us. That cause, which we call in scholastic phrase "predisposing," be it injury or sewer-gas poisoning, or alcoholic excess, is all that we see. To us it is the *sole* cause. And so it may seem that I demolish the very distinction I have been insisting on. Not so. The distinction is a very real and tangible one, and is intimately connected with the pathology of pneumonia. For if the relationship of cause and effect be of the nature I have tried to indicate, not only do we bring bodily injury, regarded as a source of pneumonia, within the compass of a large class of causes all acting through the nervous system, but, further, we go far to establish the fact that this pulmonary affection, the true lobar pneumonia of definite duration and orderly sequence of symptoms, is not a lung inflammation merely, but the local

expression of a wider, and often of a nervous, disorder.—*Lancet*, April 24, 1886.

Hutchison (J.) on a Case of Calculous Nephralgia; Death During a Paroxysm.—The patient was a man æt. fifty, a shoemaker to trade, and of a spare habit of body. He had been out of sorts for a day or two, but making no special complaint. On being questioned, he mentioned a dull pain over the region of the liver, and a "kind of a pain" on the left side of his abdomen. This latter uneasiness extended from the loin down through the abdomen into the scrotum and front of thigh. He paid no attention to it, however, being under the impression that he had "stressed himself." This strain, as he called it, was an old affair, and appeared to come and go a great deal. He always felt a "weakness" on that side, especially after hard work or walking a distance. He had never thought it worth while consulting a doctor upon it. His past history was to the effect that though he had never enjoyed robust health, he had never had an illness of any duration. He occasionally partook of stimulants to excess, and of late years this habit had been growing upon him. Every winter, for some time back, he had been subject to bronchitis. At the time I saw him first—on 24th Feb.—he had all the symptoms of a bilious attack—retching and vomiting, headache, dryness of mouth, tongue coated, constipation, flatulence, etc. The skin was hot and dry, but the temperature was not febrile. Urine very high colored, even smoky, but no appearance of blood, only a trace of albumen. The uneasiness in the left loin he did not think of much account. Next morning the retching and vomiting were not so severe, but his other symptoms were much the same. The pain in the left loin however, was not any better, if any thing rather worse. Next morning—*i. e.*, the third day from the time I saw him first, the pain in the loin was agony, shooting as it did along the region of the ureter into the scrotum. Paroxysms of even greater suffering came on every little while. The testicle was retracted and the thigh tilted forward. These symptoms had all come on the night of my second visit. Palpation increased the suffering in a marked degree. The respirations were hurried, the pulse very rapid, the face anxious and pinched. Every little while he drew convulsive sighs, and along with these there was great rest-

lessness and tossing about in bed. Altogether he had the appearance of one who, if his agony was not relieved, and that quickly, had not long to live. Treatment gave him a certain amount of relief, but in the course of an hour, during an excessively severe paroxysm, he heaved a long sigh and died.—*Glasgow Med. Jour.*, April, 1886.

Money (A.) on a New Symptom of Megrim and Epilepsy.—The patient in whom the new symptom was noted was a man aged twenty-nine. He had suffered from many of the symptoms that are usually put down under the heading of megrim, such as transient hemiopia, spots and flashes of light, headache with and without nausea, and abnormal tactile sensations. When about eleven years old he used to faint with a queer sensation at the epigastrium. The new symptom consisted in an apparent momentary lengthening of a written or printed word during reading, caused by a reduplication of one or more of the letters in the word. The patient observed that this annoying symptom was most frequent when the flashes of light were most troublesome. Another noteworthy fact in connection with his visual organs was the long persistence of negative images, a condition which was not always present, but only at the times when he felt "bilious." There had never been convulsions or motor spasm of any kind; nor, with the exception above mentioned, has he ever lost consciousness. At times the patient was troubled with a ringing noise apparently in his right ear; he was, however, distinctly though not very deaf on the right side. Reflecting on this symptom of apparent lengthening of a word, it occurred to Dr. Angel Money to ask his patient whether he ever experienced a similar alteration in the length of spoken words. This was answered in the negative. There was an weakness of any ocular muscle, and only a trifling degree of myopia. The author remarked that there were many ways of interpreting this symptom. He did not think there was any fraud, or reasonable doubt that the symptom was a real one. Was it due to some transient disturbance in the muscular mechanism of the eyes? The author thought this supposition not at all improbable. But he considered that, theoretically, it must not be overlooked that we might have to do with a symptom belonging to what may turn out to be an

altogether new field of sensory nervous symptoms, by which he meant a group of symptoms which might best be designated as "reduplicated sensory nervous actions." If the patient be right in his opinion that one of the letters of a word is doubled in the apparent lengthening, then it would not be at all absurd to regard the phenomenon as due to the reduplication of a nervous discharge in the visual word centre.—*Lancet*, Jan. 3, 1886.

Underhill (T. E.). A Case of Post-Mortem Hyperpyrexia.—A strong, healthy woman of thirty-five was delivered, on Nov. 5, 1885, of a living male child. Labor was natural, and she progressed most favorably afterwards, speedily becoming convalescent. On Dec. 3d she came to consult me about a small tender swelling in the left breast, close to the nipple. Milk was abundant, and she was nursing from both breasts. I applied some liquid extract of belladonna to the left breast, and recommended her to stay in the house for a few days. Dec. 6th: There was every appearance of a small mammary abscess, though fluctuation was indistinct. She complained of shivering. Was ordered to bed, with quinine every two hours. 7th: Much better. Temperature normal. No pain in breast. Fluctuation more distinct. 8th: Slight rigor; skin moist; no pain; abscess about the size of a small nut, and pointing close to the nipple. I suggested making an incision, but she preferred to let it take its course. 9th: Patient same as yesterday. Skin warm and moist; abscess had not burst. I omitted to use a thermometer, as there appeared to be no higher temperature than I should have expected from the state of the breast. No evidence of disease in any other organ. In the evening her husband came to me and said she complained of feeling very hot, but was in no pain. I ordered fifteen grains of salicylate of soda and fifteen grains of citrate of potash every two hours. 10th: Sent for at 4 A.M., but on my arrival found the patient dead. Her mother told me that she had remained in the same condition as when I last saw her, merely complaining of feeling very hot, till about 3 A.M., when she became slightly delirious, and died a few minutes before I arrived. On placing my hand on the body I found it still very hot, though the skin was moist, and her night-dress was saturated with perspiration. I introduced a thermometer

into the right axilla, and the mercury rapidly rose to 110.2° F. Thinking there might be a mistake, I shook the index down and took the readings again, but with the same result. After fifteen minutes I requested patient's mother to ascertain the temperature, and she found it exactly the same. I waited for more than an hour, and removed the bedclothes so as to expose the chest and allow cooling to proceed more rapidly, and the mercury then rose to 108.8° F.—*Lancet*, Jan. 16, 1886.

PATHOLOGY.

Arthaud (G.). A Study of the Senile Testicle. *Thèse de Paris*, 1885.—The modifications of age consist:

1st. The calibre of the tubes, which dilate and thicken in the adult, contract, while their walls hypertrophy in age.

2d. The connective tissue increases progressively from birth.

3d. The epithelial element, itself, inactive in childhood, reaches its supreme activity in adult life and then undergoes degeneration corresponding to that of the individual.—*Gaz. méd. de Paris*, April 10, 1886.

Feltz (V.). An Experimental Study on the Toxic Power of Febrile Urine.—Before the Académie des Sciences the author narrated the results of forty experiments which he had performed with M. Ehrmann. They were summarized as follows:

1. Uræmia tends always to coma, and almost always to death, but this tendency is more marked than when normal urine is used.

2. Smaller amounts of febrile urine (two-thirds or one half) are needed to cause uræmia.

3. The toxic power of the urine cannot be estimated by its density.

4. There are in febrile urine toxic agents which are not even in small proportions in healthy urine.—*Gaz. hebdomadaire*, April 16, 1886.

Yashvili on Pathological Spleens.—Dr. Yashvili describes, in the reports of the Caucasian Medical Society, two interesting cases of pathological spleen. A patient who suffered from malaria was killed by an accident, and the spleen was found to be enlarged, with a closely adherent capsule. In the parenchyma was a collection of pus about the size of a walnut, in

the walls of which three osseous lamellæ from one to three centimetres in length were found, all the other organs of the body being healthy. The second case was that of a perfectly healthy man who met with his death by accident. He seems, however, to have suffered at some previous time from malaria. The spleen was found to be diminished in size, being only 7.5 centimetres in length, 3 in breadth, and 1 in thickness. The capsule was membranous, thickened, rough, of a grayish-white color, and closely adherent to the parenchyma. The latter was of a dark-brown color, and on section the septa appeared as gray cords and nodes. The author suggests that, as this organ could have been of very little use to its owner, the spleen cannot be an absolutely essential portion of the human economy.—*Lancet*, April 24, 1886.

Foot on Spontaneous Rupture of the Heart.—The case was interesting from the fact of the rupture having occurred in bed during sleep. It happened in a man, over sixty years of age; the heart was in a condition of fatty degeneration, and the rupture was in the left ventricle on its anterior aspect. Rupture of the heart—under no circumstances a very common event—is still less frequently met with independent of physical effort or mental excitement. The subject of the event was a car-driver, sixty-six years of age, admitted to hospital exactly a fortnight before his death, complaining simply of weakness and short breathing. He said he had been ailing but for a week before admission. At the time he came under my observation, his feet and legs were œdematous, the action of the heart weak, slow, and unequal, his color pale, and skin of a satiny smoothness. His appetite was good, and urine free from albumen; and under the use of rest, meat, and wine, with tonic doses of digitalis and nux vomica, he frequently said he was daily gaining strength, but never showed any inclination to leave his bed. He slept a great deal, and often had to be aroused when the class came round. His sleep was never of a lethargic or comatose variety. On the morning of the 9th of February, 1885, he was found dead in his bed. There was no indication of any discharge from his stomach or bowels having taken place, nor was there any disturbance of his bed-clothes; his face was quite placid; he was such a quiet

man, and usually slept so much, that his not moving in the morning was unnoticed by the other patients; he had made no noise during the night. The distended pericardium, when slit open, gave exit to blood-stained serum, and contained twelve ounces of jet-black coagulum, part of which was connected with a longitudinal rent in the anterior surface of the left ventricle, midway between the apex and base, and close to the septum ventriculorum. The pale, soft, and greasy muscle of the heart had obviously been the seat of fatty degeneration.—*Med. Press*, April 2, 1886.

SURGERY.

Verneuil on Fashions in Surgery ("Prurigo Secandi").—M. Verneuil, the eminent surgeon of the Paris School of Medicine, gave a very brilliant address as president of the meeting of the French Association for the Advancement of Science at Grenoble. He devoted himself to a review of the position of surgery at the present day, and delivered a most witty attack on fashions in surgery. He said that even in the present day *Prurigo Secandi* is a sporadic, endemic, and epidemic disease, for which no vaccine has yet been found. It is not difficult, he said, to prove this statement. In the seventeenth century, it became the fashion to transfuse. The *furore* became so great that it had to be stopped by an edict of Parliament, dated 1668. In the eighteenth century every man who had fallen on his head, and was suspected to have cracked his skull, was trephined. During the wars at the end of the last century and the beginning of this, every gunshot wound of the extremities was treated by amputation. He went on to say that at the time when he entered the medical profession, tenotomy was the rage; every tendon, every ligament, every muscle in every region of the body was cut. Squinting, stammering, spinal curvature, bandy-legs, even deafness, were supposed to be thus cured. The subcutaneous method was then the saddle which fitted every horse; it was the operative panacea. A little later on he saw the birth and prosperity of resection. It flourished chiefly in England and Germany.

Above all, in the special departments, ultra-operators are to be found. For when one specialist operates, all the specialists

operate. If one specialist cut something, all his colleagues cut it also, only they cut it in a different way ; and, as is evidenced by the catalogues of our large instrument-makers, with an instrument which is not quite the same. If a museum of surgical instruments were to be founded, immense cases would be required for the exhibition of all the lithotomes, urethrotomes, hysterotomes, and all the other machines with names ending in *tome*, including those little innominate instruments destined, he believes, for incising strictures of the nasal canal, strictures which, it is no slander to say, can hardly ever exist, or do not need to be cut when they are present.

Gynæcology and ophthalmology compete for first place in this new race, but he looks for the triumph of the former. We have seen, he says, in these later times, without counting cauterizations which are often useless, and dilatations of the cervix, which are of very doubtful utility, the invention of Emmet's operation, of Battey's or Hegar's operation, of Alexander's operation, and so on. The reviews and journals report and, generally, praise them ; it becomes imperative to publish facts in support, and a gynæcologist runs the chance of being considered a man of very little account if he have no observations to produce.

The ease with which certain methods become popular is truly surprising. As an instance, he cites the scraping of cold abscesses. The idea is theoretically defensible, but reflection inspires certain reservations, and it would seem prudent to appeal to experience. To obtain this, however, it would be necessary to wait, and the present generation will not in fact submit to this. Therefore we scrape, and scrape, and scrape, and those who do not scrape are said to be retrograde and behind the day ; and so, as we go on scraping, we penetrate even into the spinal canal, and, although the operation gives encouraging results (that is the regular formula), the scraped patient goes to join his ancestors in a better world.

If, not without reason, it were objected that the above operations are good and deserve to be maintained, he would none the less maintain that they have been singularly abused ; that is, we have transfused too much, trephined too much, tenotomized too much, resected too much, dilated too many strictures, excised the iris too often, operated a great deal too much on the

female pelvis, scraped cold abscesses a great deal too much. If conclusive proofs of this abuse are wanted, he would merely recall the fact that in a great country like France, with thirty-seven million inhabitants, the operation of transfusion is now performed not more than half-a-dozen times, the operation of trephining not more than a dozen time in the year ; that in every country nowadays the spinal and lingual muscles of the hump-backed and stammering are left alone ; that in England, where resection was common, it is now hardly ever performed ; that the eye-surgeons, who not long ago could not believe in the success of a cataract-operation without iridectomy, now nearly all agree to leave the iris uninjured, and that the famous scraping is every day losing ground.

"If time permitted," he said, "I might bring under notice all the retreats effected by these knights of the bistoury ; you would find that after having operated for some time at random these great *séateurs*, perceiving how mediocre were their results, paused at last ; but the pause ought to have been at the commencement. Good faith and common sense will lead every surgeon to see that an attentive study of the facts, with regard to the surgical operations recently revived or introduced, proves that a number of them not only have served no useful purpose, but were, in fact, evidently sterile from the beginning. A great fuss has been made in recent years, about extirpations of the larynx, the pharynx, the stomach, the uterus, the kidney. In how many of these cases has the cure been permanent ? How many have been in any way benefited by these terrible undertakings ? Hardly ten per cent. I admit that for these ten the operation has been very serviceable ; but is it possible to deny that for the remaining ninety it was a mistake ? I invite you to study and criticise the following piece of reasoning : Take a hundred cases of a certain disease ; at a certain epoch operations would be performed in a half the cases, twenty years later in only a quarter. If the results of the two series be equally fortunate, I conclude, that of the fifty operations during the first period, twenty-five at least were superfluous."—*Lond. Med. Record*, April 15, 1886.

McCully (S. E.) on Tumor in the Jugular Vein, Left Side.—Miss C. presented herself with a tumor extending from the ear, along the line, and above and be-

low the jaw—apparently—but more especially below, covering a space, longitudinally, of five inches, and vertically, of about three and one half. After carefully examining, we concluded :

1. No glands were involved.
2. That the tumor was deep.
3. To operate.

Accordingly, after due preparation, we placed her on the chair, put her under ether, and I proceeded to cut down on the body. I found an immense amount of fatty deposit around the parts, and no distinct glandular enlargement. I cut through a subcutaneous branch of the facial, also a large deep branch, after which, at the depth of one inch, the body of the tumor was laid bare. At first I concluded to remove sac and all together, but, after careful sponging and examination, we concluded to open the sac in which the tumor seemed to be located. To do this was the work of a moment, and it was done with the handle of my tenaculum. Judge of my surprise when venous blood began pouring out of the wound, flooding every thing in a moment. I at once passed in my finger and found the tumor lying unattached in the vein, and turned it out in an instant. I then passed in my little finger and pushed it into the opening in the lower part of the sac, from which poured the blood. Following this movement with outward pressure, the blood being checked by my assistant, Dr. Potts seized a tenaculum, passed it through the vein from the inside of the sac, and drawing it up, I applied another ligature. The hemorrhage permanently stopped, and we both took a long breath, deep and satisfactory. Parts of the tumor under the microscope show great proliferation of large cells, the cells very closely resembling brain matter. The tumor otherwise presents, on section, appearances very much like brain matter, but more dense and organized. There are no well-defined striæ in it, and, altogether, we regard it and its position as very unique. Has any of your thousands of readers met with a similar case? If so, we will be happy to exchange opinions with him.—*Medical Age*, Feb. 20, 1886.

Park (Rob't) on White Peat Powder as a Surgical Dressing.—Since my previous article appeared in the *Practitioner* [xxxv., 166] I have made a much more extended use of this powder, alone and in combination, with very gratifying results.

Alone, it answered exceedingly well as a siccative in a case of acute eczema of both arms. When this became subacute the combination with vaseline and bismuth oleate was successful in allaying irritation and inducing a healing process more quickly than many other methods which I have tried. General treatment was, of course, not neglected.

In two cases of offensive perspiration of the feet and toes, one of the palms, and one of the perineum, it has also answered admirably alone, not only remedying the actual abnormality but seemingly removing the tendency.

Several cases of old-standing psoriasis, one of lepra, one of acne rosacea, and one of eczema rimosum of the hands and lips, have all been much benefited where they have not been cured. The latter patient, a young lady with strong family predisposition, writes : "My hands are a great deal better with the use of the soap, and my mother's also are nearly well." In all the cases the powder was prescribed in form of an ointment with vaseline or a soap odorated by eucalyptus extract.

In this connection I may note in passing that Prof. Unna, of Hamburg, has been treating some forms of skin disease—acute especially—by means of powdered marble in soap. It is a curious coincidence, but I am satisfied the white peat is an infinitely superior agent for the object aimed at, viz. : to remove morbid exudations or incrustations and stimulate a more healthy gland-action and epithelial growth.

It is in combination with iodoform, however, that I have obtained the most noteworthy results. My previous good results have been confirmed in nineteen cases of chancroid. Without exception it proved much superior to any of the dressings in common vogue.

Two cases of hard sore *solely* under its influence cicatrized previous to the eruption of the secondary rash. In a case of smegma præputialis it has answered better than any other application.

Several cases of severe bruises have been treated by simply incising the bullæ when necessary to allow the escape of effused blood or serum, and then applying some of the powder, covering with a layer of absorbent wool, and maintaining in place.

An important consideration was that only one dressing was required, and in none of the cases had the patients to stop work.

From an economical point of view this is an immense benefit.

In a severe sprain of the ankle simulating a Potts' fracture, the following procedure was adopted. Two suitable pieces of flannel were taken and sewn up the centre. Between the folds a paste, formed of the peat powder, milk of lime, and sodium silicate, was freely laid in, and the foot and ankle clad therewith. Thus was formed an extremely light splint which, when it set, exercised an equable pressure and gave the necessary support. The patient was well and at his work within four weeks.

For ulcers of the lower extremities the dressing acts better than any thing else, insomuch as it immediately destroys fetor, lessens discharge, stimulates the growth of healthy granulations, and promotes cicatrization.

The same good result ensued from the dressing of a strumous ulcer of the mucous membrane covering the ramus of the left lower jaw which burrowed behind the last molar tooth; iodoform alone and several other applications had failed.

In the granular pharynx of chronic pharyngitis it has answered well, used by insufflation; and, in the same way, it has been found invaluable by me in chronic endocervicitis and ulceration of the os uteri. One or two dressings suffice to clean the os and cervix and leave healthy granulating surfaces.—*Practitioner*, April, 1886.

Pine-Wool as a Dressing, and Pine-Needle-Oil as a Styptic and Antiseptic.—The green leaves are stripped from the trees, the oil is distilled from them, and they are then treated with caustic lye. The finished product is a fibre as strong as jute, which is spun and woven into carpets. It is durable, takes dyes without a mordant, imparts a soothing balsamic odor to the room, and wears glossy and smooth. A fabric possessing such properties suggests itself at once to all those parts of hospitals where carpets are admissible. As valuable as we believe this carpeting to be, we did not intend to say so much of it as of the pine-wool which the same factory prepares in bats for surgical dressings. This fibre is not strictly a wool, of course, but the name was applied to a somewhat similar material in Germany, where it was introduced, under the name of Wald-Wolle, in Humboldtstan in 1840.—*Amer. Jour. Phar.*, Feb., 1885.

The Wilmington product is brown, soft,

and elastic enough in bats not to pack or cake. It has a rather pleasant odor, and as it comes from the factory it needs no impregnation with other antiseptic material than that inherent to the fibre. The cheapness of this material, and its eminent qualities will soon recommend it to private surgical cases, but more particularly to large hospitals.

Pine-needle oil is brownish and heavier than oil of turpentine—the former being .888, the latter .876. It has a warm, bitter, aromatic taste, slightly acid and lasting, and the odor of tan-bark, with a slight suggestion of nutmeg oil. The best oil is obtained from leaves gathered in July. It oxidizes in the air more rapidly than oil of turpentine, is more viscid and gummy. Its application in surgical dressings is most gratifying. Only a limited experience in its use has so far come to our knowledge, but it has been of a very convincing kind.

The qualities which make it superior to other similar dressings are: (1) That it makes, when applied to cotton or to pine-wool an impervious, unirritating dressing. (2) That its odor is rather pleasant, and its powerful antiseptic action keeps wounds sweet for days. (3) That it is markedly styptic.

The writer of this invites the employment of these articles by the profession, and a supply will be furnished to (at present) a limited number of surgeons desiring it, he believes, although this article is written entirely without the knowledge of the manufacturers.

Such a dressing as above described is admirably adapted to lacerations of the hands, and to all compound fractures. We believe that the pine-needle oil would be a far better styptic to the small bleeding vessels encountered in ovariectomy than sub-sulphate of iron, and for the topical dressing in ovariectomy the wool is all that could be desired.—*North Carolina Med. Jour.*

Axford (W. L.) on Removal of the Entire Lower Jaw through the Mouth.—Harry T., aged five. Admitted to St. Joseph's Orphan Asylum in November, 1885. It was noticed that his mouth was frequently swollen and sore. Child very much emaciated. In January, 1886, he had measles. Tedious convalescence followed. Came under observation about February 1st. Weak and thin. Lower part of face very much swollen. Breath

offensive. Symphysis of jaw bare. Could not examine further at this time. Pulse 120 to 130. Put the child on supporting treatment, hoping to get him in condition for an operation. No improvement at the end of two weeks. February 16th the patient was anæsthetized and the mouth explored. Found the jaw on either side stripped of its periosteum back to the masseters. Determined to attempt removal through the mouth, as any culling operation involving the loss of much blood would have been fatal at once. Divided the jaw on either side of the symphysis with bone pliers and thus removed a large portion of the body. Seizing the remaining pieces with sequestrum forceps and making moderate traction, they were easily enucleated by the index finger of the left hand. Not more than a tablespoonful of blood was lost. Patient rallied well. Some reaction on second day. On third day the pulse had dropped to 116, and with exception of a swollen parotid on the left side, the child was in better condition than before the operation; so much so that a recovery was confidently predicted. A severe attack of diarrhœa occurring on the morning of the fourth day was followed by death in thirty-six hours.—*Cincin. Lancet-Clinic*, April 10, 1886.

Boeckel (E.). Cocaine in Lithority.—In the *Gazette médicale de Strasbourg*, April 1, 1886, the writer gives details of the removal in four sittings of a vesical calculus an inch in diameter, no anæsthetic being used. He injects into the bladder 40–50 grammes of cocaine solution, and also fills the urethra with the same. In two to three minutes he can operate without pain and can continue operating twenty to thirty minutes. He has never seen the slightest intoxication. He advises for the first séance a solution of 15 % and for the subsequent ones one of 10 %.

Curtis (B. F.) on Urethritis and Chancroid.—Patients come to us on the average in the middle of the second week after the discharge has begun, and treatment is at once instituted with an alkaline mixture: $\mathcal{R}$ Potass. acet., gr. xx; spts. æth. nitr., $\mathcal{M}$ x; aquæ, 3j. M. Sig. In water, t. i. d. If this does not control the ardor urinæ in a couple of days, it is to be taken six times a day. Light diet, rest as far as possible. Abstinence from liquor, tobacco, and female company is also enjoined. The bowels are to be kept freely

open with salts if necessary. If there is any pain in the testicles, a suspensory is ordered.

When the ardor urinæ has disappeared, we furnish an injection consisting of three grains of acetate of zinc to $\mathfrak{z}$ j of water, and give careful directions to the patient how to use the syringe—to make his water first, to inject the contents of the syringe gently and retain for half a minute, to repeat the injection and retain for half a minute, this treatment to be repeated three or four times a day. This is continued until at least a week has elapsed without any sign of discharge, and then the injection is gradually given up, so that treatment lasts ten to fourteen days after the urethritis has disappeared.

So much for the routine treatment. If the case threatens to become chronic, resisting a five or six weeks' use of the ordinary injection, I order an injection of $\mathcal{R}$ Zinci acetatis, gr. jss.; ext. hydrast. fl., aquæ, $\bar{a}\bar{a}$ $\mathfrak{z}$ ss. Should this fail, I give an injection personally of argent. nitrat., gr. iij to $\mathfrak{z}$ j, once a week, continuing the ordinary or the hydrastis injection as before. If this fails, the case is considered a "chronic urethritis," or "gleet," and treated accordingly.

For chordee my great reliance has been the spts. camphoræ, as given by Mr. Milton—a teaspoonful at bedtime in water and repeat, if waked by the chordee in the night. I have the records of eighteen cases in which it was tried, succeeding in seventeen completely, and relieving in the other somewhat.

In epididymitis I examine carefully for fluid in the tunica vaginalis, and, if I find any, I draw it off with a hypodermic syringe. Even 10 $\mathcal{M}$ of fluid drawn off will relieve the tension and pain, the usual amount being two or three times that quantity. A brisk purge is then ordered, with rest in bed and a tobacco poultice. The after-treatment consists of ung. plumbi iodi. and a suspensory bandage. No urethral injections are allowed during the acute stage. Ice has been used in some cases, but with no advantage over the poultice, probably because it could not be so easily managed. In some cases opium (gr. xx to glycerin $\mathfrak{z}$ j) relieved the pain when smeared over the scrotum.

The treatment adopted for chancroids has been almost uniformly only the local application of a saturated solution of iodo-

form in ether, being an attempt to obtain a cure without cauterization. Calomel was used in two cases for certain reasons, and it certainly did not do so well as the iodoform. When phimosis is present with chancroids under the foreskin, if the patient will not go to hospital for circumcision, subpreputial injections of bichloride of mercury (1 to 4,000, or even 1 to 1,000) are used. The same injections were used in a case where the chancroid perforated the urethra at a point behind the corona, making a very deep sloughing sore, the fluid returning through the meatus. These bichloride injections seemed to have an excellent effect, disinfecting the discharges and even modifying the action of the ulcer. In only one or two cases did I observe too much inflammation from the ether in the iodoform solution, and I found the solution much easier for the patients to apply than the powder. But iodoform in powder was preferred for a few inflamed and deep sores where the sloughs were large, the whole cavity being filled with it after thorough irrigation with the bichloride solution—usually 1 to 2,000, as the 1 to 1,000 was too caustic and produced severe pain, lasting three or four hours in some of these cases.

The great majority of buboes will disappear of themselves. Two applications of tincture of iodine a week hardly merit the name of "treatment," yet the majority of buboes in my care have resolved without other treatment, even when the patient continued at work. If the case needs more energy, I let the patient apply the iodine frequently, or order a purge, rest in bed, and ice locally. Sulphide of calcium was tried in three cases and seemed to hasten resolution. Should the gland still swell and be painful, or should it present itself at the first visit of about the size of a pigeon's egg, very tender to the touch, even if the skin over it is reddened and œdematous and the surrounding cellular tissue inflamed and semi-fluctuating in spots, before proceeding to poultices and incision I try the parenchymatous injection of carbolic acid.

The operation is simple, and the first acute pain (from distension) lasts but a very short time. The gland is grasped firmly, the needle of a hypodermic syringe is quickly thrust into the centre of the gland, and fifteen to twenty minims of the

1-to-20 aqueous solution of carbolic acid are slowly injected. The gland often shrinks noticeably in the first twenty-four hours, and generally the pain and tenderness leave it even sooner. Two injections at an interval of three or four days generally suffice for a cure, and I have been amazed to see what desperate cases yield to this treatment. Although I have resorted to this method only in bad, almost hopeless cases, I have succeeded in aborting five and improving two out of the ten cases operated on. The ten cases required a total of eighteen injections. There have never been any systemic effects from the injection.—*N. Y. Med. Jour.*, March 20, 1886.

Atkinson (F. P.) on the Treatment of Gonorrhœa.—In the incubative stage it is now pretty well agreed that the more mild and soothing the treatment is, at this as well as during the acute period, the more likely is it to bring the case to a satisfactory termination. If any injection is used at all, it should consist simply of warm water or a very weak solution of permanganate of potassium or boric acid. Effervescing citrate of potassium administered internally is of great use in lessening the general febrile condition, the pain in passing water, and also the tendency to orchitis and bubo. The patient should take a light nourishing diet such as milk, barley-water, soup, broth, and light puddings, with bread-and-butter, toast, and biscuits. All stimulating alcoholic drinks, condiments, and coffee should be avoided.

In the third stage, when the sense of scalding has passed away, I generally order some copaiba, or oil of sandalwood capsules, or Cleret's copahine mège sweetmeats. If the discharge is not lessened by this treatment, then injections of sulphate of zinc (gr. iij), sulpho-carbolate of zinc (gr. ij), or permanganate of potassium (gr. i) to the ounce of water, or Watson Cheyne's bougies of eucalyptus and iodoform, will often prove of great benefit. If, however, these do not seem to effect the desired purpose, then the best thing is to inject into the membranous portion of the urethra (which will generally be found to be painful when reached) a solution of nitrate of silver (containing from two to five grains to the ounce) by means of Erichsen's liquid caustic catheter. Two or three drops only are ejected by this means, but

this quantity is quite sufficient to stop the discharge, and it rarely, if ever, requires to be repeated more than two or three times at intervals of from five to seven days.—*Practitioner*, Feb., 1886.

Kosmovsky (J. A.) on Parenchymatous Bleeding after the Use of Esmarch's Bandage.—The patient was a weak, badly nourished, retired soldier, aged sixty-two, with an old syphilitic history, extensive arterio-sclerosis, and inveterate, intractable, cachetic, circular ulcers of the right foot and leg. Yielding to the urgent requests of the patient, the author amputated his leg, an Esmarch's bandage having been previously applied. A number of large and small vessels were ligatured. Troublesome parenchymatous hemorrhage followed, but was ultimately arrested by cold, raising the limb, and carbolic irrigation. Two or three hours later, however, secondary hemorrhage occurred, the blood flowing from a drainage-tube in so considerable a stream that arterial origin was suspected. However, on reopening the wound, no bleeding artery or arteriole was discovered, the hemorrhage being entirely parenchymatous, and taking place over the whole surface of the lungs. It was fairly quickly arrested by the same means, and did not return; but every hope of healing by the first intention was gone, and an enormous loss of blood considerably increased the prostration of the patient, already exhausted. Dr. Kosmovsky was not able to find in literature any other similar instance of *secondary* parenchymatous hemorrhage occurring several hours after the use of Esmarch's bandage; at all events, the possibility of such an untoward event was deeply impressed on the author's mind, and led him to give up any further use of the bandage in favor of an immediate compression of a main artery of the region involved. [According to Dr. P. A. Pokrovsky, Professor Nasiloff has long ago discarded the employment of Esmarch's bandage.] Attempting to explain the occurrence of secondary hemorrhage in the case above, the author supposes that the bandage crushed and "glued together" the degenerated vessels; on its removal, blood first reflowed into more healthy vessels, and thus caused primary hæmorrhage; then it gradually straightened and "unglued" the crushed diseased vessels, and fresh hyperæmia and bleeding followed.—Proceedings of the Arkhangelsk Medical

Society, Fasc. ii., 1886, p. 21.—*Lond. Med. Record*, May 15, 1886.

Buzzel (J. M.) on the Treatment of Varicose Veins.—If there are unhealthy ulcers upon the affected limb, I endeavor to improve their condition so as to show a healthy state of granulation. I then wash the limb with some antiseptic mixture, latterly the carbolic solution, and apply over the ulcer a diachylon plaster. The next step of the operation is, by the aid of the right thumb and forefinger of an assistant, and of my left to pinch up the integument directly over the saphenous vein upon the inside of the knee, where it is easily found, and passing a bistoury through the two folds of integument, with the back of the bistoury towards the vein, cutting from within outwards, I make an incision about three-quarters of an inch in length, which will bring the vein plainly into view. I then pass a ligature beneath the vein, taking care not to include the nerve that accompanies the vein, but do not tie the vein in this stage of the proceedings. I then raise the foot as high as convenient and commence the application of a bandage, which I apply closely upon the limb from the toes up to the knee, forcing the return of the blood in the veins as much as possible, with the hands in advance of the bandage. When the bandage has reached the knee, I tie the vein, not so tight as to divide its coats, but simply to arrest the upward movement of the blood in the vein, leaving one branch of the ligature out, and the wound is dressed with plaster. I then keep the foot and leg raised as high as comfortable to the patient, and keep the whole limb wet with cold water, with the carbolic-acid solution, with the occasional use of the tincture of arnica or lobelia, and paying particular attention to the state of the wound, which to the feel is somewhat tender and slightly inflamed. After the ligature becomes loosened, I cut one branch and remove it, as there is no longer any need of it.

In every case I have had the patient has been comfortable throughout his confinement, having no fever, swelling, or pain. I have given internally, after a few days, aconite, Seidlitz powders, etc., to prevent inflammation, fever, etc.—*Therap. Gaz.*, Jan., 1886.

Southam (F. A.) on Nerve-Stretching for Facial Spasm.—In *The Lancet* of August 27, 1881, I published particulars

of a case of stretching of the facial nerve for clonic spasm ("convulsive tic") of the muscles of one side of the face of two years' duration, occurring in a woman aged fifty-nine, who had previously been under the care of Dr. Ross. The operation, which was performed in March, 1881, was followed by complete paralysis of all the muscles supplied by the facial nerve on the corresponding side. About five weeks subsequently, the affected muscles gradually began to regain their power, and at the end of five months the paralysis had entirely disappeared. As no return of the spasm has taken place, and a period of five years has now elapsed since the operation, the cure may be regarded as complete and permanent, and on this account the case may, perhaps, be thought worthy of further record.

In a recent article by Prof. Zesas,¹ particulars are given of the results of nineteen cases of this operation collected from different sources. In only two other instances—viz., in one case operated upon by Zesas himself, and in another by Navratil—in addition to the one above referred to, has the cure been permanent. In four cases there was considerable improvement, while in ten the operation failed to give more than a temporary relief; in the remaining two cases the result was doubtful, as their subsequent history was not followed out. Inasmuch, however, as benefit has resulted in seven out of seventeen cases, Zesas is of opinion that the operation should still be performed whenever spasm is not due to intracranial lesions.—*The Lancet*, April 10, 1886.

Bishop on Neurectomy.—A woman, aged thirty-four, fell through a manhole ten years ago, and ever since had noticed a lump in her right breast. In 1884, it began to be painful, and it was removed at her request in March. As soon as the small wound healed, neuralgic pain in the breast was complained of, and, the scar being somewhat depressed, this was freed. Pain still continued; the breast became hot and heavy, subjectively; and later, herpes, rapidly ulcerating, showed itself upon it. Various remedies were used, but without result. In consequence of her persistent demands, the whole breast was removed in September, 1885. Still the

pain continued, and the herpes, along and on each side of the scar, became worse. General remedies were tried afresh, whilst anodyne applications were freely used externally, but no relief was obtained; the actual cautery was also used, but without result. In February, 1886, the fourth intercostal nerve was cut down upon in the posterior axillary line, and half an inch removed. The nerve was found outside the external intercostal muscle; it was in a state of neuritis. On recovery from chloroform, the pain had disappeared, and had not, on April 14th, returned. The patient was increasing in weight, and was in very good spirits.—*Br. Med. Jour.*, April 24, 1886.

Lycett on Paralysis Following the Injection of Iodo-Glycerine, for the Treatment of Spina Bifida.—Dr. Lycett exhibited a girl, aged six, who, at birth, was the subject of spina bifida over the upper part of the sacrum, forming a tense sessile tumor, of the size of an orange, having an ulcerated surface of the area of a crown-piece, which, on healing, formed a thin membranous covering to that portion of the sac. As it became thinner through expansion, it was tapped when she was six weeks old. An ounce and a half of fluid was drawn off, and forty minims of iodo-glycerine injected with a negative result. The sac refilled about a week afterwards; about an ounce of fluid was withdrawn, and the injection increased to a drachm and a half, causing the sac, in a few days, to become obliterated. Coincidentally with the shrinking, however, came loss of sensory and motor power in the legs, with incontinence of fæces and urine; the paraplegia, which persisted, being complete below, and incomplete above the knees. Hydrocephalus also commenced immediately after the operation, and gradually increased until the third year, when the fontanelles closed without developing any nerve-phenomena, or impairing the mental power. The horizontal circumference of the head now measured twenty-two inches. In the report of the committee appointed by the Clinical Society of London to inquire into the subject of spina bifida, there was a case recorded, where paralysis supervened and persisted after the cure of the tumor, and appeared to be due to the treatment adopted. In several cases temporary paralysis occurred, which passed off in a

¹ *Wiener medicinische Wochenschrift*, Nos. 27, 28, 1885.

variable time ; once complete paraplegia, which subsequently disappeared. In three cases, hydrocephalus set in subsequently to the cure of the spina bifida. Of the various operative measures, that by the injection of iodo-glycerine was recommended in preference to any, as promising the greatest success, though the table of results showed that of 71 cases, only 35 recovered, 27 died, 4 were relieved, and 5 unrelieved. As evidence of the frequency and serious nature of this affection, it appeared that it caused no fewer than 647 deaths in 1882, of which 615 were in children under one year of age.—*Br. Med. Jour.*, April 10, 1886.

Yeomans on Compound Commi-nated Fracture of the Patella.—A. T., aged forty-five, of good constitution and fair general health was driving home in a light wagon, when his horse began to kick furiously. Realizing the danger he suddenly rose with the intention of jumping out. While in this act of springing out of the wagon, and when the knee was partly bent with the rectus femoris in a state of tension, the patella received the full force of a kick from the horse. Not aware of the injury he sprang out, alighting on the road upon his feet. The injured knee bent under him, and he fell to the ground. Having been conveyed home an examination of the wound was made in an hour after the accident had occurred, the patient being under the influence of chloroform.

Externally there appeared nothing but a wound about two inches in length, extending transversely across the upper third of the patella. Inserting my fingers into this external wound, I found that the whole of the upper third of the patella had been broken in several fragments, some partially and others almost entirely detached. Internally the wound extended around the fragmentary portions of the bone by a radius of about three inches on either side and above. At the time when he alighted on the ground, after the fracture had occurred, the quadriceps extensor, contracting powerfully, had drawn the fragments of bone upwards and lacerated the tissues around the joint. In this manner occurred this extensive internal wound. Considerable oozing of blood had taken place in consequence of the lacerations and of the effort to move about after the accident. Thus the cavity contained effused blood and loose fragments of the

bone. An incision was made, commencing at the external angle of the wound (over the patella) downwards and backwards about two and one half inches. The internal surface was thus freely exposed, and all the fragments were removed, including those partially detached. The cavity was then carefully sponged out with carbolized water, and the surface of the wound thoroughly cleansed. The edges of the wound were now loosely stitched together, and carbolized dressing applied externally. No attempt was made by retentive apparatus, splints or other contrivance to secure ligamentous union, and the wound was allowed to heal by the first intention.

The patient made a rapid recovery, and complains only of slight weakness of the joint in going about. There is no ankylosis. The power to lift the leg when in a position with the knee bent, is not lost.—*Canadian Pract.*, April, 1886.

OBSTETRICS AND DISEASES OF WOMEN.

Swetnam (J. M.). Antiseptic Vaginal Injections in the Parturient Woman.—The whole process of child-bearing is purely a function of health, as much so as deglutition or conception. Sickness is not an incident of this condition, but an accident, hence it is absurd to begin prophylactic treatment unless there is reason to apprehend danger. In malarial districts, when the autumn winds begin to blow, we are not surprised to meet with patients suffering from malaria. But he would be called a crank who would go around stuffing twenty grains of quinine into each of his healthy patrons as a prophylactic against malaria.

To my mind the wiser and more scientific course in the management of the parturient is absolute cleanliness, as near as possible, on the part of both physician and nurse, to leave no spots of blood upon the person, the bed, or linen of the patient; to see that the air is sufficient in quantity and pure; exclude all officious friends and visitors; avoid as much as possible all causes of nervous excitement; let the patient arise over the vessel, in bed, each day, that the vagina may be drained as nature intended it should. Use disinfectants all you are a mind to, externally, and keep the atmos-

sphere pure and sweet, but don't be constantly injecting irritants, be they ever so mild, into the vagina of your patient, thus disturbing her quiet and interfering with her natural recuperative powers, unless there are indications of pathological disturbances. Vigilance is at all times proper, but this is the signal for active interference, and if there are suspicions that the disturbing cause is in the genital tract, send your hot water and mercuric chloride after it, at once; or, if it is in the uterus, don't hesitate to inject that organ. Meet the enemy wherever he presents himself, and you need have no twinges of conscience because of doubts as to whether you have done your duty.

The physician who follows this course, being governed by reason and a conscientious regard for the good of his patient, following no hobbies or fashions except what the requirements of each individual case demands, is the one whose work is most likely to be crowned with success.—*St. Louis Cour.-Med.*, April, 1886.

Chase (W. B.) on Antiseptics in Midwifery.—The author held that vaginal injections during the progress of labor are harmful by washing away the mucus which coats the vagina, thus retarding labor and increasing the danger of laceration of the cervix. Subsequent to labor the injection is not required and may unnecessarily irritate the patient, and may even enter the uterus and the peritoneal cavity. Pyæmia and septicæmia do occur sometimes where injections are not used, but that they are the result of their omission is not proved. The conditions under which antiseptics are to be used were then stated. The pregnant woman is to avoid all contagious diseases. If exposed to them, she should immediately change her clothing and bathe herself with an antiseptic solution. The physician, if exposed, should act in the same way. Instruments are to be treated with antiseptic solutions. Antiseptic injections should not be used in normal labor until its termination. In complicated cases, maceration of the fœtus, etc., their use may be indicated. In cases of retained placenta, laceration of the cervix or perineum, injections may be required.—*Med. News*, Feb. 6, 1886.

Bernardy (E. P.) on the Value of Biniodide of Mercury as an Antiseptic in Obstetrics.—After reciting the details of eight cases in which hot injections

of a $\frac{1}{1000}$ solution of bromide of mercury were employed with uniformly good results, he said:

"We have here eight cases added to the three of my first paper, making in all eleven cases. This certainly gives us sufficient data to draw conclusions.

"The deductions drawn from my early cases are fully sustained by my subsequent experience, and in my mind fully establish the value of the biniodide of mercury as an antiseptic in obstetric practice.

"In my first series of experiments, to make my solution of the biniodide, I took one grain and three quarters of the salt, placed it in a mortar, and gradually broke up its particles, after which I slowly added one pint of boiling distilled water. This gave me a $\frac{1}{1000}$ solution. This took a long time, and often alcohol had to be added to dissolve the mercury.

"For the purpose of placing the biniodide in the hands of the physicians in a convenient and readily soluble form, pellets were made of three different strengths. In making them, sufficient iodide of potassium was added for the purpose, though not enough to cause any chemical change with the biniodide. The following is the method pursued in making the pellets: Both salts should be perfectly dry. The potassium iodide is first placed in a mortar which has been slightly warmed (just enough to take the chill out of it), and thoroughly powdered; the biniodide is then added and well mixed, but not rubbed hard, or the powder will be apt to cake. Care must be taken not to compress the pellets too hard; they keep just as well and are more easily dissolved when they are compressed just hard enough to make a firm pill. The following is the formula for the pellets:

" $\frac{1}{1000}$ = mercuric iodide $3\frac{1}{4}$ grains, potassium iodide 2 grains. Mix as above, and compress in pellet. $\frac{1}{1000}$ = mercuric iodide $1\frac{1}{4}$ grain, potassium iodide $\frac{1}{2}$ grain. Mix as above, and compress in pellet. $\frac{1}{1000}$ = mercuric iodide 1 grain, potassium iodide $\frac{1}{4}$ grain. Mix as above, and compress in pellet.

"In this form the preparation can easily be carried in the satchel. When required for use, one pellet is to be added to a quart of hot water (110°). It dissolves easily, and does not stain the clothing or bedding.

"The strength which I generally use is

the $\frac{1}{8}$ of an inch. Should it appear too strong, the pellet can be cut in half or twice as much water used, thus giving a $\frac{1}{16}$ strength."—*N. Y. Med. Jour.*, April 17, 1886.

Coe (H. C.). Is Disease of the Uterine Appendages as Frequent as it has been Represented?—Dr. H. C. Coe, in a paper with this title, said that chapters on oöphoritis and perioöphoritis were among the most unsatisfactory in text-books. The current literature of the subject was abundant, but much of it was compilation of a not sufficiently critical character, and based upon the ingenious but fanciful views of the older writers. The ovarian stroma was full of surprises for the microscopist. Within the organ was ceaseless activity, and the minute structure did not constantly show the same appearance either in different ovaries or in different portions of the same ovary. The Graafian follicles themselves were subject to frequent metamorphoses, while their essential structure was a matter of dispute. Nothing was more common than to hear that an ovary had been removed because it was cystic, yet no one had determined the size to which a follicle might attain without being called cystic. If it was so difficult for the microscopist to say where the normal was departed from and pathological changes began, certainly the surgeon should hesitate to pronounce upon the delicate shades separating the healthy from the diseased state by a hasty glance at the organ held up between the fingers at the operation-table. The author then considered the criteria of the laparotomist for judging the ovary to be in a diseased state; these were hypertrophic, atrophic, or cystic changes. The ovary was usually described as almond-shaped, but it might be spherical, oblong, fusiform, or disc-shaped, and vary considerably in size, and still be normal. It was considerably larger in a congested state, arising from menstruation, the influence of etherization, and other conditions, and such functional or temporary enlargement might be regarded by the surgeon as due to disease calling for extirpation. A diminution in size might be an indication of senile atrophy, and the organ might be scarred and present a variety of appearances due to physiological changes which the superficial observer was liable to look upon as pathological. Localized fibrinous thickening frequently existed in an ovary which preserved its functional activ-

ity, and in a patient who presented no ovarian symptoms. But, among the excuses offered by ovariologists for removing the ovary, cystic degeneration was the one most frequently heard, and the author had repeatedly seen ovaries, containing three or four cysts, not larger than a pea, presented as examples of cystic degeneration of the ovaries without the diagnosis being even questioned. Without venturing to dwell upon such a disputed point, he would simply call attention to the fact that, if all such cystic ovaries were to be regarded with suspicion as being the precursors of cystoma, few women could be said to be out of danger. True hypertrophy of the ovary was exceedingly rare, as was also hæmatosalpinx; hydrosalpinx and pyosalpinx were also infrequent, yet many of the specimens removed by laparotomy in New York had been said to be of this nature. A large share of them had passed through his hands, and he had found pyosalpinx in not more than one fifth of the cases. Thus, as the frequency of disease of the uterine appendages had been exaggerated, it was impossible to avoid the conclusion that those organs had been removed oftener than the circumstances justified. He believed that in the future the symptoms of which many of the patients had complained would be explained more frequently by the presence of localized peritonitis or neuralgia. Not a few women who had had their tubes and ovaries removed New York had precisely the same pains from which they had suffered before the operation, and the one criticism to be offered upon the work of American laparotomists was that they did not observe their patients long enough after reporting them as cured. It was worthy of being borne in mind that, if a localized peritonitis had not been the cause of the pain before the operation, it might be developed by the operation, and place the patient in a worse condition than she was in before. It was not his intention to attack laparotomy in general, but he simply wished to show that the presence of insignificant changes in the ovaries formed an insufficient excuse for subjecting a woman to abdominal section; and he believed that the present enthusiasm in favor of Tait's operation would not endure, because it would be found that the number of cures was entirely out of proportion to the number of operations. When it could be demon-

strated that the tube was distended with pus, of course it should be removed, as there was danger of rupture and peritonitis.—*N. Y. Med. Jour.*, April 17, 1886.

Griffith (G. DeG.) on Arrest of Post-Partum Hemorrhage.—The patient had been delivered of child and placenta; all had gone on naturally and easily; I was waiting for the binder; suddenly the patient turned mortally faint; I threw up the clothes; the blood was running away *per vaginam* as quickly as possible; the uterus I was firmly grasping, but still the hæmorrhage was not checked; I tightened my grasp upon the uterus; the aorta was thumping at my hand; it occurred to me to compress it while also grasping the uterus that had become flaccid and inertiated; the bleeding was speedily staunched, the patient rallied and quite recovered, but has ever since borne the tell-tale hue and complexion of the profuse and sudden loss.

Even in the worst cases of inertia, where severe bleeding obtained, I have never failed to arrest the latter; and I believe the uterus has been stimulated by the unwonted stoppage of its blood supply and by the very compression of the aorta necessary to accomplish our object.—*Medical Press and Circ.*, March 24, 1884.

Tedford (J. C.) on an Ovary Expelled from the Anus.—The patient, Mrs. S., aged about twenty-eight years, had been married nearly ten years, and had had three children, all now living, and three miscarriages, occurring each time at an early period of utero-gestation. While being treated for inflammation of the left ovary, metritis, and retroversion, Nov. 27th, a sound, meeting no obstruction, was introduced four inches into the uterine canal. Jan. 9th a small foetus was expelled. Jan. 14th, she asked her husband to assist her up to the chamber. This he did, when she was taken with a severe tenesmus or disposition to strain, and had severe pains in the abdomen. As she expressed it, she could not resist the straining efforts, until a tumor was expelled from the anus. I was sent for, and went direct to her bedside, and found her lying upon her side, and a tumor, as above stated, protruding from the anus, very red in color. It did not seem large enough to be the womb, but to make a start towards a solution of the case, I introduced my finger into the vagina and found the womb all right, but higher up in the pelvis than common for it, and turned

to the side. I then introduced my finger into the rectum, and discovered that the tumor had a pedicle extending up into the rectum, to a point almost as high as could be reached with the index finger; but by firm pressure upwards, I could feel the pedicle pass over a shelf, as it were, out of the bowel through a rent in the rectum as I then supposed it to be. This shelf over which the pedicle came, felt to be massive and thicker just under the pedicle than at any other point in the walls surrounding it. The tumor itself seemed to be much larger at one end than at the other. It was, as before stated, red at its larger end, and faded in color towards the smaller end, and was quite solid to the touch. I could make nothing out of the tumor but an ovary. Dr. Faulk confirmed my diagnosis, and ligated and cut away the tumor or cystic ovary. This prolaption was not attended at any time by any great degree of hemorrhage, but the operation was followed by a constant discharge of bloody watery fluid from the rectum. As stated before, the peritoneal coat of the expelled ovary was very red, and cone-shaped, the end furthest from the womb was the larger, perhaps, one and a quarter or one and a half inches in diameter, tapering down at the other end to nearly the size of, or perhaps a little larger than, the natural ovary and more solid. On opening the cyst, it was found to be filled with an almost transparent whitish substance, tinged a little yellow and semi-solid in consistency. This substance filled the tumor from one end to the other, showing the ovary to be in a cystic condition throughout. The coat of the cyst under the peritoneal coat was of a yellowish white color and quite firm in texture. The patient was put upon a treatment of opium and quinine internally, and antiseptic washes for the vagina and swabbing of the rectum with the same solution.

Later a second seeming tumor seemed to come out and was a direct continuation of tissue from just above the pedicle of the former operation. General peritonitis gradually advanced, with constantly increasing tympanitis, until January 20th, when death quietly closed the scene at 3:15 P.M.

Post mortem twenty-four hours after death. The womb and broad ligaments were of a dark red color and relaxed in texture.

The left ovary was absent, but the stump

from which it had been cut was very conspicuous, and had at some period after the ligation and amputation of the ovary slipped out from the ligature into the pelvic cavity. The rectum and lower portion of the colon up as high as the lower iliac fossa were quite solid and firm to the touch, as if filled nearly full of something. What was that something? The ligature upon the stump or pedicle showed not only the point of entrance of the ovary into the bowel, but showed as well that that portion of the bowel was invaginated. This gave light upon the coming down of the second tumor into the rectum on the third day after the first operation.—*St. Louis Cour.-Med.*, April, 1886.

Taylor (J. W.) on the Differential Diagnosis of Distension of the Fallopian Tubes.—The broad question of the differential diagnosis of a distended Fallopian tube from uterine myoma is an important one; and I desire to point out what, in my experience, are the chief marks of similarity and difference between the two diseases.

1. Menorrhagia may be common in both diseases, but in uterine myoma it is painless, in tubal disease it is very painful.

2. Moderate enlargement of the uterus (from three to three and a half inches) is present in tubal distension accompanied by hemorrhage (as in most cases where metrorrhagia is a prominent symptom); an enlargement beyond this may generally be expected in myoma.

3. The tumor formed by distension of the Fallopian tube is always single or double, and is always posterior to the uterus; nodular myoma is usually multiple, and the situation of the outgrowths variable.

4. The tumor formed by a distended tube, even when chronic and quiescent, is always very tender to touch, whether that touch be from the examining finger of the surgeon, or from the passage of scybala through the rectum; a myomatous nodule, unless inflamed, is comparatively insensitive. Probably, for a similar reason, dyspareunia is a very general symptom of tubal disease, but is almost unknown in myoma.

5. The outline or shape of a distended tube is fairly constant, in possessing a longer and a shorter axis; that of nodular myoma is round or quite irregular.

6. The tumor caused by a distended tube varies in its firmness or consistency, and at

some time or other will show signs of elasticity or fluctuation; that of nodular myoma remains hard.

7. Both a distended tube and myoma of the posterior uterine wall may sink lower in the pelvis by causing retroflexion of the uterus; but, apart from this, the former, although adherent, tends to sink slowly by its own weight; the latter reaches a lower point only by increased growth.

8. When pregnancy occurs, the uterine enlargement being caused chiefly by the development of the muscular tissue of the uterus, a myoma of this tissue will be much more likely to be raised by the growing uterus than a distended tube, which is only adherent, and often but lightly, to its peritoneal investment.

The only other condition that is likely to be confounded with distension of the Fallopian tube is cyst or abscess of the ovary. A special form of cystic disease of the ovary is often, perhaps generally, combined with occlusion and distension of the tubes; and if the latter be correctly diagnosed in these cases, this is sufficient for every practical purpose. But ovarian abscess or cystoma of the ovary in an early stage, the associated tube remaining normal, needs rather careful differential diagnosis from a distended tube. I have found the chief point of difference to be this: that, in cyst or abscess of the ovary, a space can be found between the tumor and the uterus unoccupied by any swelling; in distension of the Fallopian tube, the tumor is continuous with the uterus. By this means I have on two or three occasions diagnosed a cystic condition of the ovary only, when tubal disease has been expected: a diagnosis which has been confirmed by operation.—*Br. Med. Jour.*, April 17, 1886.

Wenning (W. H.) on Indications and Contra-indications for the Immediate Suture in Obstetric Lacerations of the Perineum.

1. A laceration of the first degree, as long as only the skin is involved, may be left to heal by postural apposition, provided there is no danger of septic infection.

2. A laceration of the second degree, when the fascia and muscles are torn, ought, if possible, always to be repaired immediately after the occurrence of the laceration, provided there are no complications on the part of the patient, as extensive œdema of the parts, great bruising, etc.

3. Lacerations of the third degree produce such a deplorable state of the patient afterward, that every attempt should be made to repair the accident immediately. Even if we should not be wholly successful, we may be so at least partly, by converting a laceration of the third degree into one of the second degree, which is vastly more comfortable than the loss of the sphincter power of the anus. If very urgent reasons should prevent us from attending to this accident immediately after labor, we should at least select the earliest possible time to repair the accident, proceeding with all due care and skill, as in the second operation.—*Med. News*, May 1, 1886.

Tyson (J.) on the Relations of Puerperal Eclampsia to Bright's Disease.—There is a second class of cases in which, in my experience, the prognosis is invariably fatal. A girl of eighteen or twenty, with Bright's disease, who subsequently marries, is almost certain to die in her first confinement. This is an exceedingly important practical point with reference to the question of marriage of girls with Bright's disease. If a woman has had two or three children, and then acquires Bright's disease, although the condition is more dangerous than where the renal condition comes on during pregnancy, she still has a chance of getting as near well as she was before she became pregnant. The probabilities are, however, that the kidneys are left a little more damaged than they were previous to pregnancy. The renal disease is better than it was during pregnancy, but a little worse than it was before pregnancy. It is not so with the primipara who had Bright's disease before marriage. Her marriage-bell is her death-knell. In a case, however, where there probably was no affection of the kidneys previous to pregnancy, there is every reason to believe that recovery will be complete.—*Med. News*, May 1, 1886.

Ferguson (K. M.) on Ectopic Gestation.—I met with a case of extra-uterine pregnancy in the person of a colored woman about thirty-five years of age, in October last, eight months after the termination of her natural period of gestation and her short, ineffectual labor. At that time she was extremely emaciated, unable to turn in bed, and suffering greatly from bed-sores—a very natural consequence of six months' confinement on a hard bed. About a week previous to the first time I saw her a small

portion of hair was found in one of her stools. With the assistance of Dr. Turner I placed the patient in Sims' position and introduced Sims' speculum into the rectum. I found the cranial bones protruding into the rectum about four inches above the anus, the channel of extension which nature had selected. The scalp had sloughed from the top part of the head, bringing the saw-like edges of the cranial sutures in direct contact with the bowel. The head presented a globular appearance and that of a large, well-developed child. With a long, slender pair of placental forceps I had no particular difficulty in separating and drawing one of the cranial bones at a time through the opening in the rectum, which I had made larger. Without further trouble then, I extracted the entire foetus in one mass through the anus. The foetus was considerably shrunken, all of its soft structures being changed into adipocire, the anus remaining unaltered.

The after-treatment in this case consisted in the daily washing out of the bowel with an antiseptic solution and the administration of syrup ferri iodide.—*N. Car. Med. Jour.*, April, 1886.

MISCELLANEOUS.

Narich on Malarial Fever Rebelious to Quinine Yielding to Carbolic Acid.—A woman of forty-two had off and on for a year regular attacks of intermittent fever. Her spleen was enlarged and her epigastrium tender on pressure. She complained of a suffocating feeling between the breasts. She had taken quinine under various forms without effect. For one attack she took every day gr. xv. of quin. sulph. with gr. xxx. of the bromide of potassium in solution; for another attack she took gr. xxv. sulph. quin. daily, with no beneficial result. A solution of crystallized carbolic acid in distilled water was made (4-500), and morning and night about fifteen minims were injected hypodermically for seven days. Not much irritation followed the injections and complete recovery supervened.—*Le Prog. mèd.*, Jan. 30, 1886.

Vigier on the Hydrated Sulphide of Zinc.—Hydro-sulphide of ammonium, when mixed with a solution of pure sulphate of zinc, produces the sulphide of zinc, which, when washed, dried, and

sifted, is a white powder insoluble in water and alkalis. It oxidizes slowly when exposed to the air, and hence should be kept well protected. Its formula is $\text{ZnS H}_2\text{O}$. The gastric juice acts upon it, setting free sulphuretted hydrogen. In pills it is useful in cases needing sulphurous medication. As a parasiticide it can be well combined in an ointment or with vaseline, or if a dry application be desired it can be mixed with pulverized soapstone.—*Gaz. hebdom.*, etc., Feb. 5, 1886.

Floyer (F. A.) on Intolerance of Quinine.—I was called to see a patient at an hotel, and found a gentleman, about forty years of age, well built, recovering from a very severe attack of dyspnoea, which, apparently, had threatened to become fatal. The attack was sudden, and was accompanied by well-marked urticaria which appeared, in patches about the size of half a crown, all over his body. I ascertained that the cause of this disturbance was a dose of "neuralgic drops," which, on inquiry, was found to contain about two and a half grains of quinine. He had never been able to take quinine, and had before been attacked somewhat similarly on attempting to do so.—*Br. Med. Jour.*, April 17, 1886.

Blomfield (J. E.) on Antipyrin Rash.—Twelve grains three times a day were given, but after three days of this dose, and after thirteen days of the antipyrin treatment, a rash appeared. It began during the night, symmetrically situated on the extensor surface of each knee. It consisted of erythematous patches raised slightly above the level of the skin, of an Indian-red color, which faded completely on pressure. Here and there were a few vesicles of the size of a No. 6 shot. The patches of erythema varied from about one eighth to half an inch in diameter, and were circular in shape. The antipyrin was stopped, but the rash continued to extend, first to the thighs and legs and then over the whole body, being more marked on the extensor surfaces.

The only inconvenience which the patient experienced from its presence was the itching, which at times was rather distressing, but as the rash began to fade this became much better.—*Practitioner*, April, 1886.

Tschistovitsch on the Action of Thallin.—This observer comes to the conclusion that, in dogs and rabbits, doses

of .02 to .2 gramme of thallin for each kilogramme of body-weight sometimes produces a fall of the normal body-temperature, but in many cases no reduction occurs. In feverish animals, doses of .02 to .1 gramme per kilogramme of body-weight reduce the temperature .5° to .3° C., the apyrexia lasting two to six hours. Thallin causes in healthy dogs a lowering of the blood-pressure, and a lessened frequency of the heart's beats. The former result is due to the action of thallin on the peripheral vaso-motor apparatus; the latter to an action on the heart itself. The effect on the peripheral vaso-motor mechanism is supported by many experiments, which are quoted; the most important of which is one in which stimulation of the peripheral ends of the splanchnic nerves caused no rise of blood-pressure, after a dose of thallin had been given to the animal. An experiment similar to that just mentioned was performed with the cut sympathetic of the neck: in this case there was no noticeable contraction of the vessels of the ear. Thallin is also, according to the author, antifermentative, having a marked hindering effect on peptic digestion when added to the digestive mixture in the proportion of 2 to 3 per cent.; a proportion of 5 per cent. prevented the alcoholic fermentation of grape-sugar.—*London Med. Record*, March 15, 1886.

Williams (A. D.) on Atropine Solution in Nocturnal Earache.—Some grown people and many children suffer from constantly recurring earache at night. During the day the child may have no trouble, but as soon as night comes and the child retires, the pain and the crying begin. In all such cases the very best remedy is a solution of atropine. For children, put one grain in an ounce of water; for a grown person put two to four grains in the same quantity of water. Drop three to six minims into the painful ear and let it remain ten or twenty minutes, or even let the patient go to sleep with the medicine in the ear. Repeat as may be needed. Sometimes a single application remedies the whole trouble, but at other times it has to be repeated occasionally. Rarely is it necessary to repeat the medicine the same night. The above refers only to repeated attacks of nocturnal earache, and not to acute pain from furuncles in the external meatus or from abscess in the drum. In such cases, the atropine solution would

practically have no effect.—*St. Louis Med. and Surg. Jour.*, March, 1886.

Hydrochloric Acid Externally for Biliousness.—In temporary "bilious attacks" and other derangements of the liver, and in that form of jaundice which occurs so frequently in the summer time, unconnected with organic disease, nothing is more effectual than the local application of a cloth steeped in equal parts of strong hydrochloric acid and water, applied for half an hour at a time. This counter-irritation quickly relieves the pain, sense of feeling and malaise in the hepatic region; and it is of essential service in actual jaundice of a more pronounced type. This treatment appears to cause contraction of the gall bladder and biliary ducts, and also acts freely on the intestines.

A common cause of temporary jaundice is closure of the hepatic duct, either in consequence of an accumulation of inspissated mucus forming a plug, or muscular spasm and contraction of the lower portion, where it enters the duodenum. If a mucous plug be the cause the condition must continue until it softens and breaks down.—*Med. World*, April, 1886.

The following will be found excellent in intertrigo and erythema of new-born children, and in eczema and fetid sweating of the feet:

Boric acid, 3 j.;
Peru balsam, ten grains;
Vaseline, 3 j.

—*Med. Press and Circ.*, March 31, 1886.

Wahltuch (A.) on Violinist's Cramp Treated Successfully by Electricity.

—Miss M. J., aged nineteen, consulted me in July, 1885. She had been learning to play on the violin since she was twelve years old; and, during the last twelve months, whilst practising a short time, she felt obliged to stop, on account of a painful cramp in the upper left arm and right wrist. On examination, I noticed that she could not raise her left arm as high as she did the right one. In getting the violin in the proper position, the cramp and pain manifested themselves in the left deltoid, biceps, and pectoralis muscles; the right hand holding the bow soon felt unable to do so, owing to a weakness in the wrist. In every other respect, she enjoyed very good health. My treatment consisted in applying, three times a week, a continuous current of galvanism to each of the affected muscles, separately, for five to ten minutes

at a time, using from five to fifteen Lec-lanché cells. To the right wrist I at first used the faradic, and, later on, the continuous current. In all, I made nine applications within three weeks, when all unpleasant symptoms ceased. I saw her three months later, when she assured me that she could practise now for several hours daily without experiencing any inconvenience whatever.—*Br. Med. Jour.*, Jan. 2, 1886.

Baratoux (J.) on Extirpation of the Larynx.—Desault, in 1798,* described laryngotomy, but did not practise it. The first attempt was made by Bratiers (de Louvain) in 1833. The author has tabulated 102 cases occurring between 1866 and 1886, the first operation recorded being done by Watson, of Edinburgh, the last by Labbé, Feb. 19, 1886. Of these cases only 97 were reported with sufficient fulness to study with profit, and of these 97 extirpations 83 were total and 14 partial.

Total extirpations have been practised :

	Times.	Recovery.	Death.
For epithelioma or cancer, 69	21	47	
" sarcoma 9	2	7	
" stenosis, necrosis, polyps, etc. 4	1	3	
For diseases unknown 1	0	1	
Total 83	24	58	
Result unknown, 1.			

Among these cases are reckoned as cured, five cancerous cases which remained well two months after the operation, and two cases operated on very recently.

Partial extirpation has been done :

	Times.	Recovery.	Death.
For epithelioma 4	2	2	
" sarcoma 1	1	0	
" stenosis, neurosis, etc., 6	2	4	
" unknown diseases 3	3	0	
Total 14	8	6	

The operation thus shows a record of 32 recoveries and 64 deaths.—*Le Prog. méd.*, March 27 and April 10, 1886.

To Abort Soft Chancres.—Hebra advises as follows :

Thoroughly cleanse the sore, treat with a preparation of potash-soap and spirits, dry carefully, apply pure salicylic acid, and cover with a plaster.

This treatment succeeds best when the application is renewed on two succeeding days, and the sore suppurates freely. After three days a white scab covers the sore.

An emollient ointment is now to be

spread on lint, and applied. Under this the scab freely separates, and the wound heals without any bubo formation.—*Jour. Cutaneous and Venereal Dis.*, Feb., 1886.

Konstantinovsky (M. V.) on Malarial Gangrene of the Scrotum.—A previously healthy soldier was hired by a farmer to dig up some earth for building a *sakla* (a hut), his work lasting about three hours. A few hours later, the man was attacked with an intense malarial paroxysm. On the next day, a swelling of the dorsum penis, and in the night another febrile paroxysm, appeared. On the third day, his scrotum became swollen. On examining the patient on the seventh day after the exposure, the author found a painless pasty enlargement of the lower segment of the scrotum, the postero-inferior part of which was occupied by a leathery slough, about four fingers' breadth long and three fingers' wide, situated symmetrically on both sides from the raphe, and involving the two external coats of the scrotum. Thirteen days later, the slough fell away, and healthy cicatrization commenced, the ulcer healing in about six weeks. The treatment consisted in carbolic dressing. Dr. Konstantinovsky regards the case as an instance of malignant malarial fever; the patient inhaled the virus during digging, the febrile paroxysm giving rise to a spasmodic contraction of the peripheral blood-vessels, and leading thus to the scrotal gangrene. Dr. E. J. Krasnogradoff, of Tiflis, has met with several similar cases in certain intensely malarial localities, and has seen sloughing even of the whole integuments of the scrotum.—*Proceedings of the Caucasian Medical Society*, No. 3, 1886, p. 82, *Lond. Med. Record*, April 15, 1886.

Neve (E. F.) on Trophic Ulceration of the Cornea, Following Erysipelas of the Face.—Mrs. F., aged about forty, suffered from chronic and extensive ulceration of the right leg. After prolonged rest and treatment, a cure was obtained, but only at the expense of the straightness of the limb.

Erysipelas in the face and head with intense neuralgic pain attacked a woman of about forty. After a few days this subsided, but almost immediately recurred. This happened at least thrice; as a result, great induration of the cellular tissue of the face (especially on the right side) occurred. An ulcer now commenced at the inner canthus of the right eye. This

rapidly spread and became deeper, internal strabismus occurring upon that side. An excoriation now appeared over the lowest third of the cornea. This also spread rapidly in extent and depth; the anterior chamber of the eye became filled with *débris*, and iritis was set up. It was now found that the cheek and conjunctiva of the affected side were devoid of sensation. After treatment for about two months, during which prolapse of the iris and escape of the contents of the globe seemed imminent, the patient recovered. The cornea healed, remaining opaque only in its lower two thirds. The vision in the effected eye was not worse than could be accounted for by the opacity of the cornea. The conjunctiva was devoid of sensation.—*Br. Med. Jour.*, Jan. 30, 1886.

Jessop (W. H.) on Herpes Facialis Affecting the Eye.—The writer's paper was based on four cases of herpes facialis affecting the eye. In the first case, the herpes followed the track of the external division of the supra-orbital nerve; the eye was affected with iritis, keratitis punctata, and increased tension; recovery, with perfect vision, occurred quickly. In the second, herpes along the lachrymal division of the ophthalmic nerve was followed by keratitis punctata and interstitialis. In the third case, there were herpes along the frontal and lachrymal divisions of the ophthalmic nerve, early anæsthesia of the cornea, and superficial keratitis. In the fourth case, the herpes followed the course the infra-orbital nerve, and there were phlyctenular ulcers on the cornea. It was pointed out that herpes facialis followed the distribution of the fifth nerve, and that, when the eye was involved, the branch affected was usually the ophthalmic, but sometimes the superior maxillary. The most usual distribution was along the frontal, but there was no recorded instance of the nasal being the only branch affected, nor of the nasal and lachrymal branches being simultaneously attacked, while the frontal escaped. The fourth case was, he believed, the only recorded instance of the cornea being affected in herpes infra-orbitalis. Mr. Hutchinson had pointed out that the eye was affected if the oculo-nasal branch were attacked. The most common ocular complications were swelling of the lids, conjunctivitis, and increased lachrymation; the cornea might become affected by superficial ulceration

phlyctenulæ, interstitial keratitis, or keratitis punctata; and neuro-paralytic keratitis had been recorded. Serous or plastic iritis might occur; and the pupil, though generally contracted, had been found sometimes dilated. The chief affection of the fundus was papillitis. The tension was said to be generally lowered. Palsy of the extrinsic muscles, and paresis of accommodation, had been recorded. After referring to the *post-mortem* evidence of neuritis, and dilatation of the ophthalmic artery, Mr. Jessop expressed the opinion that all the ocular symptoms, with the exception of the rarest, might be explained by supposing a dilatation of the vessels due to irritation of the sensory nerve. Vascular dilatation lasting some time would especially influence such a structure as the eye. If the whole attack were due to the neurotic storm, the different nerves would be affected nearly simultaneously, and the ocular symptoms would be coincident with the cutaneous eruption, which was not the case. Mr. Jessop attributed to Mr. Hutchinson the credit of first separating herpes accompanying the ophthalmic division of the fifth nerve from erysipelas.—*Br. Med. Jour.*, April 17, 1886.

Woods (H.) on Removal of a Splinter of Wood from the Orbit.—The lodgment of a large foreign body within the orbit, without inflicting damage upon the eyeball, is an accident of rare occurrence.

W. H., Jr., twelve years of age, was brought to me on account of an "abscess in his lower lid." His father told me that, *six weeks* previous to his visit, his little boy was playing about a house in the process of building, when he was struck in the face by a piece of shingle thrown obliquely from above. The boy was looking up at the time. The father pointed to an open wound in the lower lid of the left eye, just below the margin of the tarsal cartilage, and about two lines from the external orbital angle, and told me that this opening had been there since the day of the accident. The boy ceased to complain of pain after two or three days, but this wound did not close. About two weeks before the boy was brought to me, pain had returned, and with it there was considerable swelling of the lower lid. Poultices had been applied, and I found a copious discharge of pus from the original wound, and from a second small opening

lower down and nearer the centre of the lid. I thought I could feel a foreign body under the conjunctiva, but the father was sure that no splinter had entered the orbit. On passing the probe into the more external of the two wounds, I felt the splinter lying on the floor of the orbit. It was easily removed after I had enlarged the original wound, and measured a little over one inch long and one fourth inch thick. The wound did not heal, and one week after my first operation, I re-examined the wound under ethyl. After a careful search, I found a small piece of wood less than a third of an inch long, and as thick as the end of a lead-pencil, near the internal angle of the orbit. This was removed, and the boy soon got perfectly well.—*Med. and Surg. Reporter*, April 17, 1886.

Vigier (P.). A Lotion for Diseases of the Scalp—Antiseptic and Preservative.

℞

Hydrochlorate of pilocarpine, gr. viii.

Essences of santal, wintergreen, rose, and laurel, of each, gtt. v.

Glycerine, tincture of cantharides, rum, and spirits of camphor, of each, 3 i.

Eighty per cent. alcohol, ʒ iii. M.

Cologne can be substituted for the alcohol if desired.

The salt is dissolved in the alcohol, and then the other ingredients added. With this mixture light frictions can be employed once a day, particularly on patches of commencing baldness.—*Gaz. hebdom.*, April 2, 1886.

Liveing (R.) on Colloid Degeneration of the Skin.—The first case I met with was in a young woman; of this case I lost sight. The second was in a man; the disease attacked his face and neck, and ran its course in about a year; he at last quite recovered. The third instance was in a girl of about 16, in whom the face, neck, and arms were attacked. The following brief description, taken from my notes of one of the cases, will apply pretty nearly to the other two. The little growths are scattered about the face, neck, and upper arms, and many of them are undergoing metamorphosis; there are, however, one or two very perfect ones on the back of the neck. They consist of small, slightly raised, yellowish tumors, varying in size from a large pin's head to a split-pea, somewhat flat, of solid or semi-solid structure, but from being translucent they look as if

they contained fluid; minute vessels are seen round the margin of some of the larger ones; the appearance of these reminds one of rodent ulcer in its earliest stage, though the resemblance is in appearance only. These little tumors undergo change by the formation of a central depression, so that many are umbilicated, the depression gradually becoming a shallow crater-like excavation, and, lastly, they inflame, scab, and dry up, leaving a mark, but not a defined scar. The changes which they undergo remind one of those seen in molluscum contagiosum, but the general appearance is not very like that disease, and could not be mistaken for it.

It would be interesting to determine the two following points with regard to this disease: (1) where, and under what circumstances, the disease originates, whether from previously healthy skin; or (2) whether the degeneration may not occur in more than one disease of the skin, such as, for example, milium, xanthoma, and molluscum contagiosum.—*Brit. Med. Jour.*, March 27, 1886.

Bulkley (L. D.) on the Relations between Disease of the Skin and Disorders of Other Organs.—The skin may become idiopathically affected the same as any other organ, but local pathology has been carried so far by some as almost to ignore the existence of any relationship between diseases of the skin and the conditions of other organs.

The author of the paper read a letter received from a patient who gave an exceedingly intelligent account of her symptoms, associated with acne, rosacea, eczema, and bromidrosis. These were referable to the digestive organs, such as constipation or diarrhoea, more or less nausea, restlessness, etc., retarded menstruation, occasional attacks of severe pain in the head. Such a diversity of symptoms would almost instinctively lead one to treat the patient by other than local measures.

The subject proper of the paper was studied under the following heads: The relation which exists between the diseases of the skin and (1) the digestive organs; (2) nervous disorders; (3) circulatory disorders; (4) sexual disorders; (5) general conditions, as anæmia and debility; (6) special conditions, as malaria, gout, and rheumatism.

The general conclusion of the paper was that diseases of the skin may sometimes

bear important relations to other organs, and he will act most wisely in endeavoring to remedy the former who considers the whole of the individual presenting the same, and he will succeed best who most fully recognizes and appreciates the relations which the skin and the other organs sustain to each other.—*N. Y. Med. Record*, March 27, 1886.

Jackson (J. H.) on Paralysis of Tongue, Palate, and Vocal Cord.—

The writer had recorded several cases in which these three symptoms occurred together (London Hospital Reports, 1864 and 1868). There was also paralysis and wasting of the left supinator longus, biceps and brachialis anticus, deltoid, supra-spinatus, and infra-spinatus; these muscles did not act to the faradic current; in all anodal closure contraction was greater than kathodal closure contraction, except that the infra-spinatus did not react to forty cells. There was a patch of anæsthesia (to touch and to pain) on the summit of the left shoulder, roughly circular in outline and about six inches in diameter. The left pupil was very slightly larger than the right; there was no difference in the palpebral apertures. The left pupil did not dilate in shade nor react to light (directly or consentaneously). During convergence, which was short and partial, the left pupil contracted as well as the right. Accommodation was defective in both eyes. The left pupil underwent changes in size during ordinary movements of the eyeball, tending to contract on looking downwards or inwards, and to dilate on looking upwards or outwards. Dr. Wilson, to whom the President was indebted for most of the notes of the case, had twice observed sweating on the left side of the face, a symptom of which the patient complained. Considering that there was a clear history of syphilis and that the symptoms developed slowly, Dr. Hughlings Jackson thought there was syphilitic disease involving nerve roots. He expressed the opinion that the right hypoglossal nerve and the upper (bulbar) part of the right spinal accessory nerve were involved, and also some of the spinal-cord nerve roots entering into the left brachial plexus. He had never, with one doubtful exception, seen paralysis of the palate in cases of disease of the portio dura nerve; deviations of the uvula were common in healthy people. He thought that lesion of the bulbar part of the spinal

accessory nerve caused the palatal and vocal paralysis. The pupillary condition on the left was not like that occurring with paralysis of the cervical part of the sympathetic, except in that the pupil did not dilate when shaded. According to Ferrier, the particular spinal nerve root supplying fibres for dilatation of the pupil, or for inhibiting the action of the third nerve (Gaskell), is the first, or more probably the second dorsal; but in this case this nerve-root was not implicated, as the intrinsic muscles of the hand were not morbidly affected. Dr. Hughlings Jackson could not explain the pupillary condition; the patient's knee-jerks were present, and he had no tabetic symptoms, unless the left pupillary condition be reckoned as one. Nor could he explain the sweating of the left half of the face, except by supposing that the vaso-motor fibres in the cervical sympathetic arose from higher anterior roots than those supplying the iris.—*Lancet*, April 10, 1886.

Folsom (C. F.) on Cases of Epilepsy Treated with Borax.—I have a number of other cases in my note-books, of marked improvement from the prescribing of borax after the bromides had failed to do good, and also many where the alternate use of the two drugs, each for several months, was attended with excellent results. I have seen only one apparent cure from the use of borax, but thus far, I have used it only in cases where the prognosis seemed very unfavorable.

The first few doses of borax often produce diarrhoea, which soon ceases. The itching eruption on the skin is readily controlled by arsenic, and the tendency to nausea, flatulence, or indigestion, is easily met with spirits of chloroform, tincture of cardamom, compound spirits of lavender, etc.

It is my intention to gradually reach gr. xxx. three times a day, if there are no contra-indications to its use. I cannot say how often, or in what cases, borax will prove successful. But we should not abate our zeal in trying to find some other means for the same end, with which there may not be so manifest injury with the benefit.—*Bost. Med. and Surg. Jour.*, Feb. 18, 1886.

Eggleston (W. G.) on Quinine in Sciatica—Unusual Susceptibility to Morphia, with Tolerance of the Drug.—On March 13, at 8 P.M., I was

called to see A. F. H., æt. 54, who was suffering from a severe attack of sciatica on the right side. For sufficient reasons I administered morphia, gr. $\frac{1}{4}$, with gr. $\frac{1}{10}$ of atropia. As usual when I administer any drug subcutaneously, I noticed the time. While replacing my syringe in the case the patient threw his arms across his chest, said "All right," and was asleep immediately. This was just four minutes after the injection was made. Being somewhat alarmed at such unusual susceptibility, I aroused the patient and spoke to him. I had no difficulty in awakening him, and he seemed surprised that I had aroused him. He said that the drug had had a similar effect two or three years ago when he had taken it, and his wife confirmed his statement.

Six gr. x.-xv. doses of quinine sulphate cured the sciatica, which had a decided periodicity.—*Jour. Am. Med. Ass'n*, April 10, 1886.

Abbott on the Disinfectant Value of Stannous Chloride (SnCl_2).—In view of the objections to the use of mercuric chloride as a disinfectant and an antiseptic, it has been our aim in some recent studies to find a relatively harmless substitute for it.

Our experiments show that stannous chloride, when in contact with spores in decomposing organic matter, kills them at 1 per cent. after an exposure of two hours, and that it failed to disinfect the mass when present in 0.8 per cent. after the same length of time. Comparing these figures with those indicating the potency of zinc chloride, copper sulphate, zinc sulphate, and ferric sulphate, which are the salts most generally used for the purpose of disinfection, we find the first of these, zinc chloride, to be active in 5 per cent., and inactive when present in 2.5 per cent.; while the last three—copper sulphate, zinc sulphate, and ferric sulphate—we find to be inefficient respectively in 20 per cent., 40 per cent., and in saturation. These facts, taken in conjunction with the moderate cost of stannous chloride, and its entire inactivity on lead pipes, are sufficient to indicate a large field of utility for this compound. Moreover, when taken internally, it has no more deleterious effects than the salts of copper, zinc, or iron.

We might here state that in making a solution of stannous chloride intended for

permanent preservation, it is advisable to add an equal weight of ammonium chloride; this prevents the formation of the insoluble oxychloride of tin, which would otherwise be deposited upon standing.—*Med. News*, Jan. 30, 1886.

Dorset (J. L.). Peach-Root Tea in Epilepsy.—I wish briefly to call the attention of physicians to a remedy for this disease, that is cheap, efficient, and simple, and one which I prefer to any of the bromides. I refer to what is called here, in domestic practice, peach-root tea, which is an infusion of the bark of the root of the peach-tree. It may be thus formulated :

R Cort. rad. persicæ vulg. . . . ʒi.
Aque bullientis ʒi.

Macerate per horas 24, in vaso leviter clauso, et cola.

S. About one ounce to be taken three or four times a day.

Enough alcohol may be added in warm weather to keep it from spoiling.—*Medical Age*, April, 1886.

East (E.) on Poisoning by Essence of Camphor: Recovery.—I was called at 10 P.M. on February 23, 1886, to see a young gentleman, aged nineteen, "in a fit." I found him on the floor in convulsions, his face and neck dusky, and foam flying from his mouth. The pulse was full, and the pupils dilated. The shirt was immediately loosed, and cold effusion used, with the result that the convulsions ceased, and he became quieter. After five minutes, retching began, and the small quantity of fluid that came up smelt strongly of camphor. Ten minutes later, or a quarter of an hour from the time I first saw him, I got him up, and, by dint of firmness, persuaded him to go up to his room, undressed him, and put him to bed. There he expressed himself as quite comfortable, and only sleepy. I ascertained that my patient, who is a teetotaller, had a cold in the head, for which he had sought advice of a druggist, who recommended essence of camphor. A half-ounce of Rubini's essence was given him; and, about 7.30, he saturated a large lump of sugar, spilling a little of the camphor in the process. Not content with this, he took, at 8.30, about the same quantity in water, went to the smoke-room, and smoked two pipes of tobacco. At 9.30, he began to feel giddy and to be losing his self-control, and talked incoherently and excitedly, ran upstairs, and

fell on the floor "in a fit." Two other members of the family had thirteen drops between them, and there remained in the bottle exactly eighty drops, so that two and a half drachms have to be accounted for; and I conclude that my patient must have taken almost two drachms, if not quite—a large dose from which to recover so rapidly. With the exception of a bad headache, my patient was quite well the next morning, and ate a good breakfast, but his cold was no better.

An interesting point in this case was that, from 9.30, when the poisonous action of the camphor began to assert itself, until 11.30, when he really first regained consciousness, he was entirely unconscious of all that he did or said; and yet he resented the application of the cold water both by speech and action; answered my questions intelligently as to pain, etc.; walked upstairs, and assisted in preparing himself for bed, and, when there, said he was comfortable. In the morning, he assured me that he had not been cognizant of my visit. Another point is, the patient was, to all appearances, suffering from an epileptic seizure.—*Brit. Med. Jour.*, March 20 1886.

Porter (C. B.) on a Case of Congenital Cavernous Lymphangioma of the Back.—The patient, an infant four months old, was brought to my office for examination and advice. Three pedunculated tumors were attached to the median line of the back between the third and sixth dorsal spines. One was the size and shape of a large sausage with narrow pedicle springing from near the middle. The other two were much smaller and more sessile. All were soft and more or less compressible, apparently giving slight impulse during crying, producing pain when handled, as evinced by crying. The two smaller ones translucent, the larger one dark and dusky. The mother stated that this had been translucent, but of late had become dark and angry-looking, and much more sensitive when the child was bathed or moved, and it looked at one point as though it was about to ulcerate. The normal skin extended a short distance up the pedicle and then ended in a distinct line, the sac of the tumors looking like thickened serous membrane. The child was so fat that it was impossible to determine whether or not the arches of the vertebræ were incomplete. There was no paralysis, the child

making all motions in a perfectly natural manner. The bodily functions unimpaired.

Recognizing the uncommon seat and also the rarity of multiple character of the deformity, I nevertheless thought that I had to deal with multiple spina bifida. The character of the sacs; their translucency; the compressibility, the contents apparently receding under pressure, causing crying and redistension. All combined made it probable that there was a communication with meninges of the cord.

The operation was performed October 16, 1884. The child being etherized, the largest tumor was surrounded at its base by a silver wire passed subcutaneously; this was twisted tight. The tumor was then punctured by a small trocar to draw off and preserve the fluid. Very little fluid escaped, but by firm pressure a few drachms were evacuated. The tumor was then cut off, no fluid escaped from the proximal end of the pedicle. The skin was brought together by silk sutures making a linear wound about one and one half inches long. The two smaller tumors were treated in like manner except that the pedicles were so near together that they were both included in the same wire ligature. The wounds were treated in the most thorough antiseptic manner throughout, dressed with iodoform and carbolic gauze, with compression. The child did well up to the eighth day. The silver ligatures were removed on the fourth day, the superficial wounds having united by first intention except a small part of one, all sutures removed the seventh day. On the eighth day the child commenced to have frequent painful discharges from the bowels. This condition continued with more or less amelioration till the twelfth day, when the child died exhausted. Dr. Gannett examined the tumors and reports them to be typical cavernous lymphangiomas.—*Boston Med. and Surg. Jour.*, Feb. 25, 1886.

Morgan (J. H.) on a Case of Congenital Constriction by a Band Producing Perforating Ulcer of the Foot.—The patient was a painter aged thirty-eight. On the right hand the fourth digit had no terminal phalanx, and only a rudimentary second phalanx; the second and third digits were fused, and had only a proximal phalanx; there were no nails on these digits. The left-hand index finger had a rudimentary second phalanx and no

nail. The right lower limb showed a firm cicatricial contraction, which surrounded the knee below the patella; the leg was smaller on this side, and had a chronic sclerodermatous-like condition of the skin. There was a perforating ulcer on the under surface of the ball of the great toe, which tended to ameliorate. The knee-jerks were normal; some anæsthesia was present.—*Lancet*, Feb. 20, 1886.

Kelsey (C. B.) on the Cure of Fissure of the Anus without Operation.

—The author appends to his paper the following summary:

1. Begin the treatment by ordering a laxative every night, so that at least two passages can be secured daily.

2. If defecation is very painful, give an enema in the morning and secure an evacuation before making any application to the fissure.

3. Touch the fissure thoroughly each day with a solution of nitrate of silver, varying from five to fifteen grains to the ounce. Do this gently but thoroughly with a soft camel's-hair brush.

4. If this fails, try the insufflation of calomel, bismuth, or iodoform, in dry powder; and should these not succeed, lay a piece of very soft and fine lint in the sore and change it daily.

If the treatment is followed with delicacy and skill, I am convinced that it will seldom fail.—*N. Y. Med. Jour.*, April 10, 1886.

PUBLISHERS' NOTES.

Peacock's Bromides.—I used Peacock's Bromides in a case of meningitis when every thing else had failed, and the result was splendid, the child recovering under the use of *it alone*. G. T. VAN CLEVE, M.D., Malden, Mo.

Lactopeptine.—I have been using Lactopeptine this summer with surprisingly good results; have now a babe who takes five grains just before nursing each time during the day. The milk, which cannot be retained at all without taking the medicine, is perfectly digested, and although emaciated when beginning the treatment, is now fat and healthy. W. C. CHAPMAN, M.D., Toledo, Ohio.

Colden's Beef Tonic.—This is to certify that I have made use of Colden's Liquid Beef Tonic in several cases of

consumption and general debility, and have found it to act admirably in such cases as a nutritive *food and tonic*. Dr. H. R. HOPSON, Memphis, Tenn.

American Pocket Battery.—The Electro-Medical Battery Co.—GENTLEMEN: I received the Battery all right, it worked at once, am very much pleased with it. If it needed a name I would call it "the busy bee." Thanks for your promptness. Respectfully, H. M. BRODWICK, M.D., Decatur, Mich., March 4, 1884.

Physicians' Harness.—Those who wish to buy a handsome, durable, custom hand-made harness for little money, should send to King & Co., 24 Lake Street, Oswego, N. Y., for catalogue showing a great variety of styles with prices attached.

Horsford's Acid Phosphate.—I have used Horsford's Acid Phosphate in my practice for the past eight or ten years, and have been much gratified with the results obtained from its use. In various forms of dyspepsia it reaches a class of cases that no other medicine seems to touch, and I have repeatedly seen patients where opiates were contra-indicated, obtain refreshing sleep and rest at night from a single dose at bedtime. Dr. W. S. LEONARD, Hinsdale, N. H.

Pinus Canadensis—Gonorrhea and Granular Ulcerations.—I have used Kennedy's Pinus Canadensis in gonorrhea most successfully. I am now treating cases of chronic cervical endometritis, with granular ulcerations, and think it particularly indicated there. It was in such practice, I believe, which elicited Sims' encomiums of its merits. T. N. CLARK, M.D., Reagan, Tex.

Uterine Displacements.—Hastings and Garson, Philadelphia, offer a full line of instruments for the correction of retroversion, prolapsus, and anteversion.

Cod-Liver Oil Tonic.—In prescribing cod-liver oil, if you order Scott's Emulsion you will give your patient not only a pure oil but a combination holding the hypophosphites of lime and soda in intimate mixture.

Operating-Chair.—The conveniences of having an adjustable chair in one's office, for purposes to which the Klein chair, made in Chicago, is adapted, will be appreciated if Mr. Klein's circular be read.

Massanetta Water has been used for

the past fifty years in malarial troubles with great success. Send for circular to depot, 112 N. Ninth St., Phila., Pa.

Iron Alum Mass.—I believe the "Seven Springs Iron Alum Mass" to be the best remedy we have for diseases peculiar to females and uterine complaints. GEO. M. D. PATTERSON, M.D., Englewood, Texas.

New Haven Invalid's Chair.—A picture of an invalid reclining in one of these wheel-chairs, shows him looking so absolutely comfortable as to tempt us to play sick for the sake of such a rest. Send for the photo.

Murdock's Liquid Food.—The Murdock Liquid Food Co., of Boston, Mass., will remove on or about the first of August to their commodious building, cor. Huntington Ave. and Camden St. The Food appears to be coming into use more and more every day with physicians all over the world. Should there be any of our readers not yet acquainted with this great medical food, write them, mentioning the ANALECTIC, and they will send you samples and circulars.

Viburnum Compound.—This is described as an invaluable remedy for dysmenorrhœa and menorrhagia, and has been recognized as such by a very large number of the leading physicians of America; send for hand-book, mentioning ANALECTIC.

Ricord Capsules.—Send to E. H. Truex, 298 Pearl St., New York, for circulars pertaining to these capsules.

Guaiac, Stillingia, etc.—Physicians having any stubborn cases of rheumatism, gout, lumbago, and the various forms of neuralgia should not fail to give this preparation a trial. See advertisement on another page.

Gluten Flour.—If you will mention the ANALECTIC and write to Farwell & Rhines, of Watertown, N. Y., they will send you samples of their world-renowned medicinal flour.

Operating Chairs.—Stevens' adjustable chairs are highly recommended by physicians and surgeons all over the country—send for the catalogue.

Crust Pepsin.—This new pharmaceutical preparation, although but a short time before the profession, has made for itself an enviable reputation. Send for particulars to Wm. F. Kidder & Co., New York.

THE MEDICAL ANALECTIC

A
MONTHLY EPITOME OF PROGRESS IN ALL DIVISIONS OF
MEDICO-CHIRURGICAL PRACTICE

EDITED BY
R. W. AMIDON, M.D.

VOL. III., No. 6.

June, 1886.

WHOLE No. 30.

LEADING ARTICLES.

Eccles (R. G.) on Some Serious Sources of Error in Studying the Course of Disease.—The design of this paper is to point out the pharmacological factors that tend to make our efforts at induction so often valueless while studying disease in its active course. An approach toward accuracy has only been possible by knowing the physiological value of the remedies taken and eliminating this from the total effects. The ideal line thus established marks the maximum variation from health due solely to the disease. The physicians duty is to keep his patient as much as possible within this line and as near to that of health as he can. To go beyond it is malpractice. That the sick have been made worse by injudicious drug administration no one can deny. That they are not always benefited as much as expected by medicine is equally clear. In fact, so unfortunate have some physicians been in this respect that downright skepticism has taken possession of them. There are times, perhaps, when the best of us wonder whether we are not stealing credit from the conserving forces of life and giving it to the drugs prescribed. That such doubts should arise is far from surprising to any person who has studied into the grave difficulties that lie between our prescriptions and patients. If faulty diagnosis precedes these, the climax is capped. The patient will fare worse than if he had refused all medical care. Had all that the most sanguine medical zealot ever alleged for any drug been true, yet would its virtues fail of realization in a large majority of cases, because of the existing conditions about to be pointed out. It is not necessary to dwell long upon the exasperating tricks of nurses and friends. Orders are forgotten or neglected; domestic remedies supplement

our own, and sometimes even supplant them. If opium or liquors are given, the chances are that a meddler has advised an identical article, and there is double dosing. When depressants are prescribed, some fool neutralizes the desired effect by a stimulant, and *vice versa*. The great number of such cases would startle us if we could discover them all. By pharmacists importuned for advice they are heard of much oftener than by physicians. From just such cases most blame comes, revealing the extreme inconsistency of average human nature. But we need not dwell upon these. The dispensing of the medicine we order is of still greater importance, and demands our constant care and persevering vigilance if we wish to procure what we prescribe and as we prescribe it. In every community there are dishonest men, and some of them crawl into every craft and profession. The pharmaceutical charlatan is the physician's most dangerous foe. The rattle of excessive advertising gives us a cue to his whereabouts very often. A druggist will sell tartrate of sodium, on a solemn unasked-for guarantee, as liquor magnesii citratis, and put up a prescription calling for an article having no earthly existence, will not hesitate at any measure calculated to increase his own revenue, whatever the effect may be on others. On the main thoroughfare of our city can be found a druggist who has done these things. What can be done? If we tell our patients to go to a certain druggist in whose integrity we rely, the implied suspicion of taking commissions will injure us. We, however, owe it as a duty to our profession, ourselves, and the sick, to tell those intrusted with procuring the medicine that they must not go to a shop where evidences of dishonesty or incompetence exist. If they do, of what avails a careful diagnosis, and of what value your judgment upon the case, where remedies are being imbibed whose

therapeutic worth is totally unknown? From the extreme case cited there are many degrees in which fraud appears. Some rogues' consciences are more tender than others. Some, in fact, are so tender that they are but a shade removed from the honest. They would not think of complete substitution, but are perfectly willing to palm off inferior articles of insufficient strength. Unfortunately, this class is quite numerous and much more difficult to detect. The careless and ignorant swell the number and produce results which are identical so far as our relations toward them go. When in some articles it is the exception rather than the rule to get what we order, it is about time something was done by way of improvement. With so important an article as tincture of opium, Dr. Davenport, chemist of the Massachusetts Board of Health, found only twenty samples out of one hundred up to the standard of the Pharmacopœia.¹ Lack of time forbade an examination of as many samples for Brooklyn, but the few tested showed a similar state of affairs here. A preliminary examination of some samples of nux-vomica tincture indicates a considerable lack of uniformity in this article also. The examination in Massachusetts showed that not only tinctures, but many other drugs were in the same condition. In citrate of iron and quinine, thirty-four out of forty samples were short in quinine. Eleven out of twelve of jalap, six out of ten of creasote, ten out of ten of bromide and iodide of potassium, and twelve out of fifteen of precipitated sulphur, were below the pharmacopœial requirements. Dr. Wall reports in the *Southern Pharmacist*² that, of seven samples of male fern obtained from as many different wholesale houses, only one was male fern. He declares that he has seen large quantities of so-called red cinchona, jalap, and coto-bark that were sold all over the country for genuine articles, yet which contained no trace of the substances whose names they bore. Powdered cedar-wood, flavored with oil of cinnamon, is sold for powdered cinnamon. Exhausted powdered drugs, from which all the active principles have been extracted, are sold over again to ignorant and unsuspecting druggists to make tinctures from. They are bought upon the plea of economy, and they either have not time

or do not know how to detect the fraud. What sort of tinctures can be expected if we add to these the inability of so many to exhaust the best of drugs when they undertake to percolate them? Is it any wonder that a case should lately have been related from Minneapolis, Minnesota,³ of a Mr. Charles Johnson, who was given by mistake an ounce of tincture of aconite-root, and, after consuming it all within twelve hours, suffered no evil consequences? Last month a paper was read at a State pharmaceutical meeting, in which it was shown that, of the pepsin manufactured by twenty different houses, all fell short of the pharmacopœial requirements.⁴ Where fifty grains of albumen should have been dissolved among the saccharated samples, the range was from nine to forty-five. With the scale pepsin, the best dissolved one hundred and fifty grains to the grain, and the worst only eighteen. These are sold all over the country, and Brooklyn comes in for its share. This state of affairs is bad for all physicians, but none are so likely to suffer from it as the most skilful and conscientious. They take enough interest in their patients to press a remedy until it produces the desired effect. They are not fettered like slaves to the book's decrees. Becoming accustomed to large doses of a remedy they have proved weak, they, without knowing it, become hazardous prescribers. Somewhere they are sure to strike an honest, competent, and reliable pharmacist, and, if they then insist upon the dispensing of an ultra-maximum dose, the consequences may prove the reverse of pleasant. How often do our patients perish in this manner, and the disease take the blame?

We next come to the downright carelessness of those who handle and look after the remedies. Articles of unquestionable value as therapeutic agents are being condemned to unmerited neglect. There is a long list of this kind, but the most conspicuous at present is spiritus ætheris nitrosi, or sweet spirits of nitre. "It is the merest accident if a physician gets what he orders in any part of the United States when he writes for an ounce, or any other definite amount, of spiritus ætheris nitrosi."⁵ After these facts had been pointed out, a resolution was at once passed insisting upon proper pre-

¹ *Ibid.*, p. 85.

² *Pharm. Rec.*, vol. v., p. 372.

³ "Transactions, N. Y. State Phar. Assoc., 1885," p. 248.

¹ *Pharm. Rec.*, vol. v., p. 25.

² *Ibid.*, p. 45.

cautions being pursued in its preservation. Since then a number of Brooklyn shops, and, no doubt, others throughout the State, have adopted the reform. But what is the fearful burden sought to be imposed upon them? Nitrite of ethyl, the active agent of sweet spirits of nitre, boils at 64.4° F., and yet they will persist in keeping it in large bottles upon their shelves, where the temperature is above this point. They are asked to keep it in small bottles, closely corked, and in a cold place. One of these at a time can be opened and dispensed from.

In just one week one half the nitrite of ethyl is lost from an ordinary bottle. Other volatile agents receive about the same treatment in many shops. Spirits of Mindereus, or liquor ammonii acetatis, that should not be kept at all, but made extemporaneously when called for, can often be seen standing in a stock-bottle. When freshly made, it should tend to check nausea and be pleasant to the taste. Kept on the shelf, it would almost make a well man vomit. There are druggists in Brooklyn who, to make lime-water look clear, expose it to the carbonic acid of the air by filtering, and often render it almost worthless. Syrup of the iodide of iron, by exposure to air, changes into inert oxide and sets free iodine. If kept away from bright light, this change is rapid. By being preserved in small bottles and kept in or near a window, it shows no sign of such change in a year. Easy, therefore, as the protection is, an occasional druggist is known to dispense the decomposed article, and still others keep it by adding hyposulphite of sodium or other oxidizing agent, thereby altering its properties. When decomposed, the iron is inert and the iodine excessively active. Under such circumstances is it not clear that our best-laid plan for the welfare of the sick must often abort, and our scientific study of the disease become utterly impossible? Cod-liver oil, like the syrup of the iodide of iron, is also decomposed by air, but it must be preserved in the dark. When fresh it is not the disgusting stuff we all consider it. To its careless handling is due much of the trouble our patients have in taking and retaining it. There are many other articles that lack of care alters the chemical nature of through the action of air or light, and, while neither time nor space can now allow of their enumeration, one more must be mentioned because of its great importance. Calomel, if exposed

long to light or organic substances, changes into corrosive sublimate. When violent symptoms succeed in administration, it is well to remember this fact.

Aqueous solutions, syrups, aromatic waters, and some dilute acids constitute the natural habitat of many plants. Abscesses formed after hypodermic injections, augmented conjunctivitis after the application of supposed soothing collyria, free emesis after imbibing medicines designed to allay gastric trouble, and increased diarrhoea following remedies calculated to arrest the same, are a few of the symptoms of their presence. *Mistura cretæ* made from infected cinnamon-water has been known to make summer complaint in children violently worse. In hot weather many aromatic waters, unless kept under special precautions none pursue, spoil in less than three weeks. A large proportion of druggists keep them several months, and believe that the paper filter makes them clean and good again. This is a delusion. Boiling would do the work for them if they would take the pains. The best plan is to redistil. Nearly every compound syrup of the hypophosphites upon the market, acid phosphate, and dilute phosphoric acid undergo the same change. If we specify a certain make, our chances for securing infected goods are increased. By ordering those of the Brooklyn and New York formulary, that is now indorsed by all the pharmacists of the nation, we are more certain to get a fresh article, as well as one whose exact composition is known. This formulary should be known by every physician in the United States, and, instead of ordering syrups whose make-up is a mystery, and elixirs of impossible composition, he would know how to secure reliable articles of unquestionable therapeutic value. Why specify any man's make of any thing? If the druggist is honest, he will provide articles of full pharmacopœial strength or none. What more do you want? If he is dishonest, your specification has no more weight with him than a floating feather. It drives your prescriptions from the shops of honest men who happen to be without that brand, and increases their chances of falling into the hands of the dishonest, who will dispense any brand that suits them. A physician at 10 P.M., November 2d, prescribed some elaterium pills, specifying Squibb's. A few minutes' time in any shop would have procured a freshly made arti-

cle. So seldom are they called for that the chances were one thousand to one, if they had been found, they would have been four or more years old. At 1 A.M. twelve shops had been visited and the search given up in disgust. Had a dishonest man been met with, the prescription would have been filled. But how? Is it not a very lazy way to write a prescription? Either you know the composition of the thing ordered or you do not. If you do not, it is the act of a quack to order it. If you do, then give your formula in full and in proportions to suit the conditions of your patient. Ready-made coats may be selected to fit, but ready-compounded medicines are scarcely scientific. They neither fit, nor are they likely to be fresh. In almost every instance their pretended formula is a mere blind, and no man can put up the same thing from it. In fact, they as good as tell you so when insisting upon your specifying theirs and warning against imitations. If they have told you the truth, what is the good or sense of imitation? An article prepared according to their formula should be identical with their own goods, except for being fresher. The fact is, these are nearly all secret remedies, like the ordinary so-called patent medicines, and only differ from the latter in being pressed forward by more glaring falsehoods and greater assurance. The advertisement of the plebeian article tells us that it is found in all first-class drug-stores, when perhaps not one in ten ever heard of it. The aristocratic one declares that his secret nostrum is not a secret nostrum at all, and that it is used in all first-class hospitals and dispensaries. He even goes so far sometimes as to give the names of these institutions on the strength of having sent them free samples, which probably have been consigned to the garbage-box. The former gives long lists of clergymen and politicians who have tried and indorsed it. The latter gets a lot of indorsements that are paid for in cash, others in free advertisements in their free literature. These usually begin in this sort of style: "From John Jones, A.M., M.D., F.R.C.S., Consulting Physician to the Sandwich Island Hospital College; Physician to the Honolulu College Dispensary; Member of the Oceanic Medical Society; Member of the Pathological Society," etc. Here is a pamphlet containing indorsements of this kind from four Brooklyn physicians with just such a tail to their kite

of vanity. Had they read the statements as to the nature of the remedy, they must have known they were being duped. One ingredient grows in the Southern States, another in Honduras, and the rest are common weeds and a tree growing around us. They allege that the remedy is put up in the green state under the inventor's supervision, when common-sense tells us that two at least must be from the dry plant. The proportions are kept secret for fear some one else should try to make it. Why not prescribe the articles, which are all officinal, and get the preparation fresh? In this city almost any pharmacist could put it up at much less cost. Prescribing secret remedies is rank treason to science, and to all the honored traditions of our profession, no matter how eminent they may be who set us the example. The common method of prescribing ready-made pills is another one that injures our success. Even though simple articles, honestly put up, they soon become so hard and dry they pass through like a stone. My experience, after purposely testing their use for three years, condemns them. Goods not a week out of the manufacturers' hands have time and again passed through undissolved. Besides this, the question has been raised concerning the connection these bear to the deteriorated goods that manufacturing jobbers are unable to get off their hands. No source of outlet can be discovered, and it was seriously hinted at the National Pharmaceutical meeting that they were utilized in compound pills. In an analysis of 1,000 prescriptions written last spring by more than one hundred physicians of our city, out of 357 kinds of ingredients ordered, 34 kinds of proprietary articles were named. Nearly ten per cent. of the substances used in Brooklyn practice are of unknown therapeutic value to the physician ordering, if he gets what he calls for. It is bad enough to be fooled by ignorance and dishonesty in others, but it is worse to be fooled by blindly following quack advertisements. Even if good results were obtainable by using such goods, it must paralyze progress in our profession to do so. You do not know and can not discover whence the benefit is derived. Besides, this excuse must compel you to prescribe every quack remedy. They all possess some therapeutic value. The only honest course for the physician to pursue is to order remedies that possess nothing occult or secret. If he

can not now discover the rogues among the pharmacists that make even his own prescriptions occult, combined effort on the part of medical societies will do it.

It should be the work of Kings County Medical Society, as it is certainly the duty of that body, to organize committees for every ward in the city, whose function should be the testing of druggists and reporting the dishonest and incompetent, so that all might know them. It is their duty, because it is a mere act of self-preservation. Not one member of such committees need enter a drug-shop to do this work. The examination of their prescriptions from time to time in a proper and systematic manner will give all the needed facts. Such a course would rapidly lower the death-rate by putting into our hands reliable weapons for combating disease. When druggists discover that physicians are watching them in such a manner, they will strain every nerve to improve matters. So long as the physician himself is careless, none but the honorable in their ranks care.

A watch upon the pharmacist will tend to save us in many directions, but it can not supplement our own ignorance of facts we should certainly know. Only the other day a prominent practitioner in this city told me that he was not aware that since 1880 laudanum had been eleven per cent. stronger than it had been previous to that time. Had he prescribed a maximum dose by the old standard, assuring the druggist that he was right and would take the responsibility, where would he have been? The following table, by A. L. Belleville, Ph. G., from the *Pharmaceutical Record* of Feb. 1, 1883, gives the increase and decrease per cent. of strength of preparations as made according to the fifth revision, or 1870, and the present Pharmacopœia (1880):

	Decrease in Strength.	Increase in Strength.
	Per cent.	Per cent.
Acetum lobeliae	23	
“ opii	38	
“ sanguinariae	23	
“ scillae	23	
Acidum aceticum		3
“ dilutum		33
“ hydrochloricum dilutum		28
“ nitricum dilutum	14	2
“ phosphoricum dilutum sulphuricum	4	
“ dilutum	17	
“ sulphurosum	45	

	Decrease in Strength.	Increase in Strength.
	Per cent.	Per cent.
Alcohol dilutum		17
Confectio sennae		20
Extractum aconiti, 1870, leaves. 1880.		Root.
“ conii alcoholicum, 1870, leaves. 1880		Fruit.
Ferri et quinae citras. quin.	25	
Liquor acidi arseniosi		15
“ ferri chloridi		11
“ potassae	14	
“ potassii arsenitis		15
“ sodae	12	
Opii pulvis		20-60
Opium		12.5
Opium denarcotizatum		
Spiritus anisi		47
“ camphorae	28	
“ cinnamomi		25
“ juniperi		50
“ lavandulae		50
“ menthae piperitae		56
“ viridis		56
“ myristicae		50
Tinctura aconiti	16	
“ aloes		22
“ et myrrhae aa	17	
“ arnicae florum	13	
“ asafetidae		25
“ calumbae	33	
“ cannabis	44	
“ cantharidis		42
“ capsici		42
“ catechu composita		71
“ cinchonae	20	
“ conii, 1870, leaves, 1880		Fruit.
“ cubebae	33	
“ gallae		25
“ guaiaci	13	
“ ammoniata	13	
“ humuli		14
“ lobeliae		25
“ myrrhae		67
“ nucis vomicae	45	
“ opii		11
“ deodorata		11
“ quassiae		67
“ rhei		20
“ serpentariae	33	
“ stramonii	33	
“ valerianae		25
“ ammoniata		25
“ veratri viridis	9	
“ zingiberis	27	
Ungeuntum acidi carbolici	17	
“ tannici		67
“ belladonnae	17	
“ gallae	17	
“ hydrargyri ammoniata		25
“ hydrargyri oxidum flavum		25
“ stramonii	17	
“ zinci oxidum		25
Vinum ergotae		20
“ opii	23	
“ rhei	28	

The changes in the acetic, dilute muriatic, and dilute nitric acids, liquor acidi arseniosi, liquor potassii arsenitis, opium, tincture of aconite, tincture of cantharides, tincture of nux vomica, tincture of opium, and tincture of veratrum viride, are probably the most important. Tincture of aconite-root has changed its name to plain tincture of aconite without the root. This change in name may cause trouble with physicians who have never used the word root when ordering it. Before the revision they probably invariably got the tincture of the leaf. The difference, however, can be but little, as the officinal tincture is now sixteen per cent. weaker than it was. It is customary for pharmacists to dispense the weaker of two preparations when the doctor fails to distinguish between them. When the vinum colchici is ordered, the wine of the seed, being the weaker is the one given. To get the wine of the root you must write radicis. When in chemicals a similar doubt is left, there is no such short way out of it. Then the doctor must be consulted or the most commonly ordered one given. Ordering sodii sulph., the -ate salt may be supplied when the -ite was intended. With iron the subsulphate may be given for the tersulphate. With potassium there is a choice between the -ate, the -ite, and the -ide salts, all of which are officinal. With magnesium, the -ate and the -ite bother.

Reviewing all the chances for error, fraud, accident, and deterioration of medicines, is it not really wonderful that our results are as good as they are? How can we expect any thing but doubt and confusion with such a state of affairs? Are they not all serious sources of error to every pathologist who faithfully tries to study the course of disease? How long shall we stand passively by and allow matters to continue as they are when we have the remedies in our own hands? "Physician, heal thyself," and heal the social diseases that limit your sphere of usefulness in so marked a manner. Some Brooklyn physicians have proposed as a remedy for a number of the ills enumerated that physicians keep and dispense their own drugs. Allow me to say, gentlemen, that this will be jumping from frying-pan to fire. The Committee on Adulterations and Deteriorations, of the Pennsylvania Pharmaceutical Association, in their last report, proved beyond question that physicians who prescribed

their own drugs suffered a hundred-fold more than those depending upon the pharmacist. Sour syrups, fluid extracts that were not good tinctures, and badly prepared articles were the rule. Physicians have neither time nor training in this field to escape either imposition on the part of wholesalers or incompetence in themselves.—*N. Y. Med. Jour.*, June 5, 1886.

Harrington (F. B.) on Results of the Intravenous Injection of Salt Solutions.—The effort to prevent death, which threatened as a result of the loss of blood, led at an early period in the history of medicine to transfusion.

The use of the blood of animals and of blood which had not been defibrinated has been abandoned as dangerous. The blood of distinct species seem to possess toxic influences, and undefibrinated blood of the same species is dangerous, because of the occurrence of clots.

Excellent results have been obtained by the use of defibrinated blood, but it is always difficult, and sometimes impossible, to obtain sufficient human blood for transfusion.

This has led to the use of various substitutes for blood, such as milk, egg albumen, peptones, and the like. These, although of value, possess some elements of danger. The intravenous injection of salt solutions was extensively practised in the cholera epidemic of 1832-33. It was again used in later epidemics. It produced marked temporary improvement, but did not affect the final result.

Within late years it has been found by experiments on animals, that those dying from loss of blood could be resuscitated by the injection of solutions of common salt. Salt solution is an indifferent fluid, and the beneficial effect is supposed to be due to the increase in volume given to the blood remaining in the system after bleeding. In progressive anæmia life may continue although the red corpuscles are reduced to less than one tenth of the normal number; a reduction greater than would ever occur from hemorrhage. When the red corpuscles remaining after severe bleeding are brought into circulation by a harmless medium the danger of death is diminished. Moreover, the increased volume of the current gives the heart something to contract upon, and its action becomes slower and stronger.

Ott,¹ as the result of recent experiments, claims that the beneficial action of blood transfusion in acute anæmia may be explained only by the introduction of a certain amount of fluid into the circulation. The theory of the "transplantation" of blood by means of transfusion he believes is untenable, being disproved by experiments.

Maydl,² on the other hand, in his experiments on dogs was able to save more animals by defibrinated blood than by salt solution.

He says we must recognize two forms of death from hemorrhage. In one there is anæmia of the nerve centres, although blood enough to sustain life still remains in the body. In these cases stimulation, position, and auto-transfusion are usually sufficient to prevent death. In rare cases the injection of salt solution may be necessary.

Death in the second form is due, he believes, to such a loss of blood that there are not enough of the normal constituents of the blood left to sustain life.

In this case the transfusion of blood becomes necessary; or salt infusion may be immediately performed, to be followed in a short time by the transfusion of defibrinated blood.

Ott and Maydl thus differ in their estimation of the value of blood transfusion, yet both agree as to the value and the lack of danger in the careful use of salt solution.

The difficulty of obtaining a proper quantity of defibrinated blood at short notice, and the ease with which saline solutions can be made, certainly predispose in favor of the latter.

In 1883 Dr. Bull³ collected and tabulated nineteen cases in which salt solution had been used as a substitute for transfusion. These cases are presented with ten new cases which I have collected.

Of all these we have one case of iodoform poisoning, three cases of poisoning from illuminating gas. These four cases recovered. There were four cases of collapse. Two from peritonitis, one from septicæmia, one from shock. These cases showed temporary improvement, but all died. One case of incomplete removal of uterine carcinoma, after temporary improvement, died; one case died on the

following day from amyloid degeneration of the remaining kidney, the other having been removed; one case recovered from the hemorrhage, but death followed in six days from septicæmia; one case recovered but died in three weeks from peritonitis; one case died in three hours, the result of a second hemorrhage from a gastric ulcer; one case of nephrectomy, after temporary improvement, died in twelve hours; one case recovered from the hemorrhage, and died in five days of peritonitis. Of the above-mentioned fifteen cases, four recovered. The others died from some cause other than the hemorrhage. There remain fourteen cases, of which thirteen made complete recovery. One case died immediately. If correctly reported the injection of over sixty-six ounces in fifteen minutes must be looked upon as a dangerous proceeding. It is the only case favorable for the operation in which there was no improvement.

Experience has shown us that the system will bear the loss of very large amounts of blood.

Maydl (*loc. cit.*) found that dogs would sometimes bear the loss of two thirds of the blood volume and recover without transfusion or intravenous injection being performed.

To determine when intravenous injection is demanded is a question of judgment of the patient's peril, and not a question merely of the amount of blood lost. All ordinary means should first be tried. If these fail the salt solution may be necessary. The best form of solution is made as follows:

Sodic chloride	.	.	6 = 3 iss
Sodic bicarbonate	.	.	1 = gr. xv.
Aqua distillata	.	.	1000 = Oii +

Care should be taken that the solution be perfectly free from debris. Water that has been boiled and filtered or pure water that has been filtered will answer the purpose.

The solution should be warmed and kept at a temperature between 100° and 104° F.

A reservoir with a rubber tubing and a canula of small size, make the best injection apparatus. No air should be allowed to enter the current. The solution should enter the circulation at a low pressure, and its effect on the heart should be carefully watched. Gravity pressure is safer than a syringe. An elevation of one and one half to three feet is sufficient. The amount

¹ St. Petersburg Inaugural Dissertation, 1884.
London Medical Record, February 15, 1886.

² *Medizin*, Jahrbuch, 1884.

³ *New York Medical Record*, Jan. 5, 1884.

used must depend upon the effect upon the circulation, but may be from one to four pints. If a vein can be found in the arm it may be used. This can usually be accomplished if a ligature is placed about the arm above the elbow and the blood in the forearm is pushed toward the elbow, by the hand or by bandaging. If the vein cannot be found, the artery may be used. The salt solution should not be allowed to enter the circulation too rapidly, lest the heart be overpowered.

The simplicity of the operation, its great efficacy in cases of simple acute anæmia, and the lack of danger in its careful use, makes it the duty of every practitioner to be prepared to make trial of this means of saving life when the necessity arises.—*Boston Med. and Surg. Jour.*, May 27, 1886.

Wood (H. C.) on the Hygiene of Old Age.—The writer expressed some hesitation in attempting to point out in detail the application of the principles which have just been enunciated, lest the paper may fall into the hands of aged persons, and be substituted for a careful consideration of their individual cases by some skilful medical practitioner. Every person, when he advances in years, should go over his whole method of life and personal habits with some wise counsellor, and should adapt his mode of life to the peculiarities of his individual case. With this warning, it is probably safe to briefly point out some of the more important details in the regulation of the life of old people. The first question is in regard to food. The teeth in old age are, of course, lost, and they should, unless under exceptional circumstances, be replaced by artificial teeth, for the thorough chewing of food is even more necessary in the old than in the young, because in the old the digestive powers are apt to fail. With the best artificial teeth, mastication is apt to be imperfectly performed; hence the food of the aged should be soft and readily comminuted, and especially should it be of easy digestion. Very few old people need stimulating diet; very many are injured by an excess of nitrogenous food. The kidneys, like all other organs, are feeble, and, if meats and other rich foods are used in excess, they greatly increase the strain upon these organs. Milk and milk products, or preparations of breadstuffs cooked with milk, should form a very large proportion of the food of the ordinary aged indi-

vidual: but individual peculiarities differ so much that personal medical counsel should in all cases be taken, so that the diet may be regulated to the needs of the individual case. Very many old people are hurt by the use of food in excessive quantity; but little exercise can be taken, all growth has ceased, and the bodily furnaces which make heat are able to destroy but very little of food fuel. Some little time since, in a lecture on this subject at the Philadelphia Hospital, an assertion was made that most old people are more comfortable, enjoy better health, and probably live longer for the use of wine. This has met with very severe disapprobation at the hands of some of the profession, whose strong sympathy with the temperance movement dominates their judgment. No valid reasons have, however, so far as my judgment goes, been brought forward to lead me to change my opinion. In the overfed American people, the habitual use of wine during youthful or middle age and vigorous health is, we think, an injury rather than a good; but when the powers of life are failing, when digestion is weak, and the multitudinous small ills of feebleness perplex and annoy, one or two glasses of generous wine at dinner aid digestion, quiet for the time being much nervous irritation, and in no way do harm. The sum total of ruin wrought by alcohol in the world is appalling, but it is not lessened by our shutting our eyes to the good that wine, properly used, may achieve. When in the aged there is a distinct failure of vital power, and especially of digestive power, the call for the habitual use of alcoholic liquors is, in my opinion, imperative. The danger of the formation of any evil habits when a man has crossed the line of seventy is so slight, that the most conscientious physician need not hesitate in recommending the daily use of alcoholic beverages to his patient.

It is, perhaps, not universally recognized that in numerous cases of various character death finally is due, in greater or less measure, to cold and to an absolute failure on the part of the body to keep itself warm. In the old the heat-making functions are exceedingly low, and hence it is that few old people are comfortable in a room whose temperature is less than 80°. It is especially important, therefore, that an abundance of clothes be worn by old people; but the very weight of the clothes

oppresses, so that it is important that lightness of material should be combined with warmth. There is no ordinary garment which compares in heat-preserving powers with the buckskin jacket, and, in our climate, every man who passes the seventieth year should furnish himself with such covering. At first the jacket should be only worn when going out of doors; but in very advanced age it should form a part of the habitual underwear. The jacket should be high up in the neck and long in the sleeves, and should be of such a length as to thoroughly cover the abdomen. If worn as an under-jacket, it should be perforated so as to allow the escape of the vaporous emanations from the body. Whenever there is any tendency to abdominal weakness, in addition to the jacket and the ordinary warm underclothes, an abdominal flannel bandage should be worn. It ought not to be forgotten that the mass of blood of the human body is in the abdominal organs, and that this is especially so when the circulation is sluggish. It is affirmed by authority that after death all the blood of the body can be put in the relaxed abdominal vessels; hence the importance of maintaining the abdominal warmth, and hence also the good effect, in feeble people with pendulous bellies, of the bandage, which helps to sustain the relaxed vessels, and thereby maintain the general circulation. The mechanical effects of tight abdominal bandages are well understood by the profession in the treatment of ascites. It is well known that the sudden removal of the fluid by tapping over the abdominal cavity takes away so much pressure from the abdominal vessels as to cause them to relax, and draw the blood away from the heart and lungs and brain in sufficient quantity to produce fainting. It is to prevent this that the patient about to be tapped is bound up, and the bandage continually tightened as the water flows off. The importance of the habitual abdominal bandage is, perhaps, no less, although not as universally recognized.—*Therapeutic Gazette*, May 15, 1886.

Saundby (R.) on the So-Called Antiseptic Treatment of Phthisis.—My opportunities as House Physician to the Royal Hospital for Diseases of the Chest taught me to recognize the value of inhalations in the treatment of pulmonary affections at the outset of my professional life. I was among the first to employ on

a large scale the method of continuous inhalation by one or other of the respirators with which we are familiar; in fact, I took some pains, in conjunction with our instrument-maker, Mr. Best, to invent a special form which has been largely used in this town. My experiments included numerous observations upon terebene, sanitas, creasote, chloroform, eucalyptol, camphor, carbolic acid, etc. I think, therefore, that I am not open to the suspicion of being ignorant of or indifferent to the value of this method of treatment, but I desire to protest as emphatically as I can against what I conceive to be a misuse of the word "antiseptic" in this relation.

I do not admit my friend Dr. Coghill's proposition, that, granting the dependence of pulmonary phthisis on the presence of the tubercle bacillus, the rational treatment of phthisis must include the administration of "antiseptic" remedies.

The fallacy here depends upon the misuse of the word "antiseptic." It is based upon the assumption that we possess remedies having the power of checking the growth and development of infective organisms within the body, and of thereby preventing the further production of the diseases dependent upon them. But this is quite unwarranted. There is not a single shred of direct evidence in its favor.

The "triumphs of antiseptic surgery," so disingenuously quoted to bolster up this assumption, have been gained solely under conditions where germs could be *excluded* from healthy tissues, and the cardinal principle of Listerism is the tendency of *healthy* wounds to heal if kept free from septic agencies.

Neither Sir Joseph Lister nor any of his followers has alleged that the system is of any special value in old putrid wounds, or in tubercular or non-tubercular diseases of bones, joints, or glands, though these can be irrigated with solutions of any strength of the most powerful "antiseptic."

There is reason to remind those who would extend the application of "antiseptic" methods so far beyond the conditions to which their inventor regards them as applicable, that not only the truth of the principles upon which they are based, but even their actual practical value is still within the region of controversy.

I believe we may explain the value of iodine, chloroform, creasote, camphor, etc., in the treatment of pulmonary affections,

without assuming any "antiseptic" effect. It will not be claimed that chloroform or ether act by destroying germs. Creasote, terebene, and turpentine are valuable remedies when taken in pills or in mixtures. These drugs are useful in ordinary bronchial catarrh where no bacilli are present, and, in my opinion, the great value of the inhalation system depends upon its being an efficient means of treating the too-much-neglected bronchial catarrh of phthisis. When physicians recognize that they have to do with a case of phthisis, they are apt to regard the expectoration and cough as altogether or mainly due to the pneumonic or tubercular process. This is frequently a great mistake, as the cough and expectoration in very many instances depend upon bronchitis, which may be cured or greatly improved by careful treatment. It is for the early treatment of this bronchitis that I desire to see the less grudging admission of cases of phthisis into our general hospitals, and I would confidently appeal to the experience of all who have worked in chest hospitals to confirm my view of the prevalence of bronchitis in connection with pulmonary phthisis and its curability by indoor hospital treatment.

In conclusion I would urge that we should be careful in pressing therapeutic claims which are unsupported by evidence and by sound argument. Quackery itself mainly errs by claiming for its means a larger field of usefulness and greater power than truly belong to them.—*Birmingham Med. Review*, May, 1886.

Blomfield (J. E.) on Hypertrophy of the Male Mammary Gland during Phthisis.—I wish shortly to call attention to a condition of the male mammary gland arising in the course of pulmonary phthisis, which seems to have some relation to the disease, the exact nature of which it is hard to define; but perhaps when attention is directed to it, and some histological researches have been made, we shall know more about it. It consists in a uniform enlargement of one or both of the mammary glands accompanied by pain and tenderness. It appears to be of quite a different nature to the tuberculosis of the breast described by several surgeons.

Attention was first called to this condition at the recent meeting of the French Medical Association at Grenoble (1885), in which it was made the subject of a paper by Dr. Leudet. He described three

cases that had come under his observation, and since that date he has reviewed the subject in the *Archives de Médecine* for January, 1886, with the addition of two new cases. I propose shortly to give an account of his paper, and then describe a case which has fallen under my own observation.

The first case, described by Dr. Leudet was that of a mason who had for some time presented marked signs of phthisis, when he complained of pains in his left breast, and stated that the pressure of his shirt in that region gave rise to a good deal of pain. On examination it was found that the breast was much increased in size, and gave to the fingers the idea of a disc four centimetres in diameter freely movable on the underlying tissues. There was no enlargement of the glands in the axilla or in the neighborhood of the mamma, and the skin over the gland presented no alteration of color. After the enlargement was observed it gradually diminished, till in two months' time, at the discharge of the patient, it was reduced by one half.

The second case was a man who had had a chancre, but no other evidence of constitutional disease, in whom the progress of the phthisis was watched from the year 1878 to 1885, when, in the month of February of the latter year, he complained of pain in the left side, and it was found that the breast of that side was a disc of four and a-half centimetres in diameter. There was no adherence to neighboring parts, and the skin above it was normal. There was no ganglionic enlargement of any kind, and the right breast was of the ordinary size and appearance. The left breast was the seat of a spontaneous pain, devoid of any radiating character. The enlargement slowly diminished till, three months later, the disc measured two and a-half centimetres, and, in five months more, had regained its ordinary condition and appearance.

In the third case the enlargement was on the left side, and attained the diameter of four centimetres. The right breast was normal. The case was complicated by an abscess in the side, not in connection with the breast. The patient died during the enlargement of the gland, and at the autopsy no naked-eye evidence of alteration, beyond the increase in size, was obtained; but, unluckily, the gland was lost before any microscopical observations had been made.

In the fourth case both glands were attacked, but the left one first. The superjacent skin was rather red. They attained the diameter of four centimetres. They were not exactly painful, except on pressure, but gave rise to an uncomfortable feeling of tension, which the patient aptly compared to the pain felt in the breast on attaining the age of puberty. In a month and a half the enlargement had nearly disappeared.

The fifth observation concerned the left breast only; it was of a similar character to the others.

It should be noted that in all these cases the phthisis was of the most pronounced character, and in each case the condition of the lungs, as revealed by physical signs, is minutely given, but I have thought it better to omit them for brevity's sake. According to Leudet's conclusion, this phenomenon would appear to be an affection of the male mammary glands, consisting in a general augmentation of volume, without local induration, without any coloration of the skin, without adhesions, and without any axillary glandular enlargement, accompanied by a non-radiating spontaneous pain. The commencement is unknown; one gland is generally attacked. It increases in size slowly, and then decreases. It never gives rise to suppuration. The explanation that he offers is that it is connected in some way with the internal inflammatory process in the neighborhood of the gland.

I will now describe briefly a new case which has fallen under my own observation.

Henry B., a coachman by profession, aged fifty-six years, was admitted on the 27th of November, 1885. He gave a history of a cough of about three years' standing, and, on examination, was found to present the signs of chronic phthisis. He complained of his breasts being painful and tender, and, on further examination, they were found to be considerably enlarged, about the size of a crown-piece, disc-like in shape, with a well-defined edge. The nipples were rather red and prominent, the glands were freely movable on the adjacent tissue, and there were no glandular enlargements. Manipulation was rather painful. No liquid of any kind could be squeezed from them. The enlargement appeared to be perfectly uniform, and the gland of one side was exactly similar to that of the other.

As a boy, patient's breasts were quite normal, and nothing peculiar was noticed about them till six months before the date of admission, when the one on the right side, which patient remarks has always been his weak side, was found to be tender to the pressure of his ordinary clothes. Previous to this his chest had been painted with tincture of iodine and rubbed with various liniments.

Since November to the present month (February), the glands have remained in much the same condition, except that they are softer and the edge cannot so easily be felt. On one occasion, a small drop of serous fluid was squeezed out of the nipple, which, under the microscope, showed nothing but epidermal cells.

I can offer no explanation of this condition, but the fact that many frictions had been applied to his chest should not be lost sight of, for, as is seen in the customs of some of the lower races of man, repeated manipulations are capable of calling the male breast into activity, and this might be the commencement of the process.—*Practitioner*, May, 1886.

Duguet and Héricourt on the Mycotic Nature of Tuberculosis and the Bacillar Evolution of Microsporon Furfur; its Pathogenetic Fungus.—

Sections of tubercular organs treated by 10 to 40 % solutions of potash show always in and near the tubercles fine granules, large spores, and branching mycelium, more or less broken up, similar to the different forms of the *microsporon furfur*, with which two of the patients studied were covered.

The presence of these fungi is more constant than that of the tubercle bacilli. They were not lacking in any tubercle granulation, and were found in caseous masses in the lungs, which often contain no bacilli.

Under a magnifying power of 350 diameters, the mycelium, with its processes—some large and some hair-like, but all branching and jointed—penetrates the alveoli, where it has often been seen, but heretofore taken for foreign bodies, gaining access to the specimen during preparation. They are present in the sputum of consumptives, where tubercle bacilli are numerous, but in patients clinically tuberculous, where no bacilli are found, there can be seen both spores and mycelium. To find them the sputa should be washed with potash.

Cultures of the *microsporon furfur* injected into guinea-pigs and hares have rendered these animals tuberculous in every case. Moreover, a hare submitted to tracheal insufflation of pityriasis scrapings was found to have, fifteen days afterwards, complete infiltration of the lungs with miliary tubercle, with a spread of the process to the liver and kidneys.

The tubercle bacilli of Koch are only a micro-organic form corresponding to one of the phases of evolution of the *microsporon furfur*.

This connection explains the marked absence of bacilli in the young miliary granulations of other organs than the lung—particularly the lymphatic glands and testicles, where the elements of the *microsporon* are always present.—*L'Union Médicale*, May 4, 1886.

Pitt on Cardiac Dilatation about the Age of Puberty, and its especially frequent Occurrence in Girls.—A girl aged sixteen had grown three inches during the preceeding year and worked hard at school, but at the same time was fond of vigorous exercise. For some months she had noticed that, on violent exertion, she had attacks of dyspnœa, with cardiac discomfort, lasting for the rest of the day. Latterly, these attacks had been more frequent, and had several times occurred at night, so as to render sleep impossible. She had palpitation, was languid, readily became tired, and had attacks of partial syncope. Menstruation had occurred only once in six months previously, and was scanty. The physical signs were a prolonged systolic apical sound, accentuated second pulmonary sound, and diffused impulse, extending out to the nipple-line, with slight epigastric pulsation. The essential feature in the treatment was, she should lie down for two hours in the middle of the day, so as to rest the heart. Arsenic and iron were given internally. Six months later she had been free from any symptoms for many weeks. During the past year, the author had seen seven similar cases, presenting similar but less-marked symptoms. Six were in girls from ten to fourteen, one in a girl aged eighteen, one in a boy aged fourteen. They had almost all grown rapidly; in none was puberty complete; and in all, development was taking place slowly. The author drew attention to the much greater frequency of these symptoms during the development of puberty, especially when it

was slowly established. Beneke's observations had shown that, whereas the average increase in the heart previously to puberty was ten per cent. annually, the increase due to puberty was 80 to 100 per cent., and that this increase might be spread over one to three or five years, but that the puberty increase, in excess of the annual increment, was greater in proportion as the changes were rapidly accomplished. In those cases in which puberty was developed slowly, the heart hypertrophied imperfectly, owing to deficient nutrition, and hence there were cases in which signs of cardiac weakness were frequent. Naturally the period when the greatest strain was put upon the heart was the one which furnished the greatest number of failures. Bowditch had shown that, up to the age of eleven, boys, on an average, were heavier and taller than girls, but that for the next two or three years, girls had the advantage. This more rapid growth of girls at this age, the more rapid development of puberty, and the associated greater blood-pressure, rendered girls at this age much more liable than boys to break down. The symptoms in these cases were due to a halt in the normal developmental process, and hence tended naturally to recovery. When they occurred later in life, they were usually much more serious, as they implied cardiac degeneration. The exceptions were chiefly cases of unusual muscular strain, and had been noted chiefly in young policemen and soldiers after long drilling, long marches, etc., to which Dr. Myers and others had drawn attention. These tended, with rest, to recover. The cause in these cases, as in the ones narrated, was a slight temporary cardiac dilatation. The deficiency was mainly one of cardiac tone, and the amount of dilatation was very slight, and rarely led even to a systolic apex-bruit. The author stated that the cases to which he referred in his paper were exceedingly common, but that their especial frequency about the period of puberty had not, so far as he was aware, been noticed, nor had the explanation hitherto been offered. The group of symptoms due to the cardiac weakness was dyspnœa on exertion, languor, loss of energy, with palpitation and cardiac anxiety; while, in extreme cases, the dyspnœa was severe, and came on with very slight exertion. The treatment was good food, and rest in the recumbent position in the middle of the day, which invariably accelerated

their departure.—*Br. Med. Jour.*, May 1. 1886.

Three Recent Instances of Non-Venereal Syphilis. Hermet on Hard Chancre of the Ear.—A woman of forty-two noticed a small pimple the size of a pinhead in the auriculo-mastoidean fold. She scratched it a good deal and it grew larger. She finally poulticed it. One morning she noticed a ganglion the size of a pea in the upper sterno-mastoid region. The sore was of a coppery-red color. There was on the anterior part of the body a brownish pigmented eruption, which appeared to be the remains of a roseola. There were mucous patches on the vault of the palate. Later a mucous patch appeared on the vulva. On investigation the husband was found to be syphilitic, having among other lesions a chancre at the base of the tongue.—*Ann. de Dermat. et de Syph.*, Feb. 25, 1886.

Lavallée (M.) on Chancre of the Eyebrow.—A man of forty-two was bitten on the eyebrow by a young man with whom he quarrelled. Before the wound had healed a hard chancre developed in its posterior part. In the sixth week he had secondary scrotal syphilides. There followed pre-auricular and retro-maxillary adenopathies, formation of lymphatic cords and glandular abscesses about the eyes. Later syphilitic buccal erosions appeared. After four months all induration of the eyebrow had disappeared, leaving a scarcely visible white scar. There were still present buccal and scrotal mucous patches and a ganglionic swelling in the left axilla.—*Ann. de Derm. et de Syph.*, Feb. 25, 1886.

Nièce (Ch. de la) on Hard Chancre of the Elbow.—A musician of twenty-six fell and received some trivial excoriations on the right elbow, which scabbed over. About this time he had two suspicious connections. The elbow had no dressing on it, and he admitted having scratched it often. Three weeks later there was slight pain and redness about the scabs. On the application of poultices the scabs fell off and three small ulcers remained, which did not heal but enlarged and coalesced. In about a month the sore began to heal. A little over three months after the injury he was seen by the writer and Fournier, and at that time there was a general papular erythematous syphilide, with other eruptions of the face, prepuce, and scrotum, mucous patches of the mouth and tonsils, crusts

in the hair, and alopecia. There was a hard chancre over the olecranon the size of a silver dollar, which was evidently healing. There was a large painless bubo in the right axilla.—*Annales de Dermat. et de Syph.*, April 25, 1886.

Pasteur (W.) on a New Method of Estimating the Condition of the Right Side of the Heart.—In September, 1885, I called attention in the columns of the *Lancet* to a distension of the superficial veins of the neck which occurs when, under certain circumstances, pressure is exerted over the liver. I have since then had the opportunity of examining a large number of patients presenting both positive and negative instances of this phenomenon, with results of sufficient interest to be worth recording. The physical sign in question is a distension or over-filling of the external jugular veins, apparently from below, with or without pulsation or undulation, which takes place when pressure is exerted in the right hypochondriac or epigastric regions with the flat of the hand, the direction of pressure being backwards and upwards. Before proceeding to make the examination the patient should be placed in the recumbent posture, with the neck slightly extended and the head turned a little on one side, while care is taken that the muscles of the neck are not in a state of tension. The sign is usually best marked on the right side, but may in almost every case be demonstrated on the left side also. It is essential that the movements of respiration should be normally maintained throughout the examination. I have frequently observed a partial filling-in of the supraclavicular fossa at the moment when pressure is first exerted. This is especially marked in thin subjects, and may be accounted for to some extent, perhaps, by simple mechanical displacement, but is, I believe, chiefly due to an involuntary arrest or modification of breathing, and almost invariably subsides in a few moments. The amount of pressure required varies in different individuals. In rare cases rigidity of the abdominal muscles renders the manœuvre quite impossible. The presence of moderate ascites is no impediment, but excessive distension of the abdomen with fluid or gas renders the necessary manipulation more difficult and sometimes impossible. The pressure should be exercised gradually and steadily, otherwise an attack of coughing is liable to be induced, particularly in

cases of bronchitis. The patients rarely complain of any pain or even discomfort, but on the occurrence of the least pain the manipulation should be at once discontinued. The following case affords a good illustration of the phenomenon.

L. W., aged thirty, was admitted into the Middlesex Hospital in October, 1885, suffering from intense dyspnoea. The face was cyanosed, the lips very blue, and the breathing very rapid and shallow. There was moderate distension of the external jugular veins, which pulsated distinctly and filled from below. Over the heart's apex there was a short systolic bruit, with a line of conduction towards the axilla. The heart dulness was increased towards the right; the liver was not enlarged. Pressure exerted in the right hypochondriac and epigastric regions immediately produced a very marked alteration in the jugular veins. They became very visibly distended, the pulsation at the same time becoming less obvious, and shifting to a spot higher up the vein. This alteration in the condition of the veins persisted as long as the pressure was maintained, but on removing the hand these at once returned to their former state. The patient was treated with full doses of digitalis. On the third day there was a marked improvement in her general condition. The breathing had become natural and all traces of venous pulsation and distension had disappeared. Firm pressure applied as before was now entirely without effect on the veins. Once or twice a scarcely perceptible filling of them below the valves was observed, which was probably due to a slight modification in the breathing.

With a single exception, to which I shall refer again, this phenomenon has invariably been met with in cases which showed evidence of great over-distension or failing compensation in the right heart. I believe it to be invariably present in well-marked tricuspid incompetence, whether functional or due to disease of the valves. Of this I have had post-mortem confirmation in at least four cases. But besides these there are a considerable number of cases which ultimately recover, in which the sign is present with varying intensity at one period or other of the illness. Such are instances of mitral valvular disease, whether regurgitant or stenotic, and of chronic pulmonary emphysema, complicated with acute or severe general bronchitis. The question

naturally arises, whether the distension in these latter cases (emphysema, etc.) should be regarded as evidence of slight tricuspid incompetence or simply of great over-distension of the right heart falling short of failure of the tricuspid valve. It is to be noted that these are precisely the cases in which the question of tricuspid incompetence has to be considered from a prognostic point of view, and is often left undecided. Venous pulsation is generally absent, and often the cervical veins are but slightly distended. Not infrequently there is undulation of the spot where the distension of the vein ceases. This may be systolic only, or double, and synchronous with the heart beats. (I have hitherto failed to observe the quadruple undulations described by Guttmann.) The valves in the external jugular veins are usually competent, and the veins empty completely with each inspiration. The effect of pressure below the ribs varies in these cases with the amount of obstruction to the venous return. 1. In the least-marked cases the vein, although not perceptibly distended under the pressure, is seen, nevertheless, not to empty completely during inspiration. 2. In others a degree more severe, a moderate distension results; the vein becomes visible as far as the anterior border of the sterno-mastoid muscle, more rarely as high as the angle of the jaw. At the same time the spot where undulation was visible becomes shifted higher up the vein, and the character of the undulation is not infrequently modified, the double variety being replaced by a single systolic flicker, the single variety occasionally disappearing altogether. 3. In cases yet more severe, but in which the usual signs of tricuspid regurgitation are not developed, the pressure sign is often elicited with great distinctness, with or without undulation, and is, I think, here to be regarded as indicating early tricuspid failure. In the second class of cases, which differs from the third in degree only, I am inclined to think that there is great over-distension of the right heart, falling short, however, of regurgitation, possibly with excessive strain on the valve cusps.

The exception above mentioned occurred in a man who had a large empyema on the left side, with considerable displacement of the heart to the right. In this patient the sign was fairly well marked for a considerable time, but ultimately disap-

peared when he recovered, his heart having then returned to its normal position. I have entirely failed to obtain it in other cases of pleural effusion. The following case illustrates the information which may be conveyed by the absence of this sign.

H. W—, about fifty years of age, was admitted into the Middlesex Hospital in December, 1885, presenting the signs and symptoms of severe bronchitis and emphysema. The external jugular veins were distended, filling rapidly from below, but not pulsating visibly. Examination of the chest revealed nothing beyond marked emphysema and somewhat increased resistance, without dulness, over the upper two right interspaces near the sternum. There was slight bronchitis of the larger tubes. Beyond that mentioned, there was no clear evidence of obstruction of veins within the thorax. Firm pressure below the ribs produced no change whatever in the external jugular veins. Relying on this evidence of the absence of tricuspid regurgitation, a diagnosis was hazarded of intra-thoracic growth obstructing the superior vena cava, which was completely verified at the post-mortem examination.

The mechanism of the production of this phenomenon is probably complex. Without presuming to offer a complete explanation, I would suggest that the following factors probably enter into it: 1. Compression of the inferior vena cava by the liver, especially in cases where this organ is enlarged. In my original communication, considerable importance was attached to the rôle played by the enlarged liver in these cases. I am satisfied, from observations in the post-mortem room, that a certain amount of compression from this cause is possible. But looking at the nature of the case in which this sign is met with, and in the face of the repeated observation that enlargement of the liver is not a *sine qua non*, I am disposed to consider the conjunction casual rather than causal. This factor, however, probably acquires more importance in cases of tricuspid regurgitation, with pulsating liver. 2. Lessening of the inspiratory action of the thorax through interference with the movements of the diaphragm. This I believe to be a more important factor. It may be urged against it that, if true, pressure below the ribs should produce the same effect in healthy individuals. But I think it may fairly be argued that, whereas

in health the heart and lungs may, and do almost immediately, adapt themselves to slight modifications of pressure, etc., within the thorax, it does not follow that in disease they possess the same capacity. 3. Direct mechanical interference with the proper movements of the right side of the heart. A glance at the anatomical relations of the right auricle and ventricle to the diaphragm and subjacent liver will suggest the possibility, not to say probability, of such interference.

There can be but little doubt that the effect of subcostal pressure, whatever the mechanism of its action, is to put increased difficulties in the way of the proper action of the right side of the heart, so that the pressure sign in cases where the tricuspid valve is considered to be still competent, is to be looked upon as a measure of the capacity still possessed by the right heart to combat increased resistance. In cases where the tricuspid valve is incompetent, the effect of the pressure is to aggravate the conditions under which the heart is already unable to do its work, with a proportionate increase in the signs of that inability. I venture to think, therefore, that this subcostal pressure-sign possesses undoubted value as a means of diagnosis, and may also afford valuable information as to the progress and ultimate prognosis of many cases in which we are now reduced to mere conjecture for want of some definite, tangible index of the condition and working power of the right side of the heart.—*Lancet*, May 15, 1886.

THERAPEUTICS.

Fox (G. H.) on the Value of Lanolin.—His views respecting lanolin may be summed up in the following statements:

1—Lanolin is more readily absorbed by the skin than any other fatty substance.

2—As a basis for ointments it is useful when an effect upon the deeper skin or upon the whole system is desired.

3—On account of its firm consistency, it is advisable to mix with it a certain amount of lard, especially in cold weather.

4—When applied to a highly inflamed skin, lanolin may not prove as bland as *fresh lard* or *pure vaseline*.

5—Considering its recent introduction, its questionable superiority, and its present cost, it cannot be recommended as yet as

the best basis for all ointments.—*Four. Cut. and Ven. Dis.*, June, 1886.

Brooke on a Cleanly and Economical Method of Applying Ointments.

—A number of ointments, prepared with a solid base, composed of cacao, butter, wax, and oil, or lanolin, are cast into the form of sticks ("salve-sticks"). The writer had found them particularly useful in making applications to the face and hands, since, their melting point being high, they did not run at the temperature of the body, as did ointments prepared with the ordinary bases; and, when dusted over with powder, they were practically invisible. When covered with Mather's, or Seabury and Johnson's adhesive rubber (water-proof) plaster, they offered a mode of applying remedies to the skin which was more durable than the Unna-Beiersdorf plasters, and less expensive. With this protective covering they were especially applicable to the treatment of psoriasis by chrysarobin, and possessed several advantages over the methods of Pick, Auspitz, and Besnier, in that the fatty menstruum was preserved; they did not need such frequent renewal; they were more readily applied, and did not cause any disagreeable dragging on the skin and hairs. The fear of staining the clothing was completely removed, and the patient might, moreover, bathe without disturbing the dressing. They were supplied enclosed in small cases, like those used for cosmetics, so that they could be conveniently carried in the pocket.—*Brit. Med. Jour.*, May 22, 1886.

Unna on Sphacelic Acid in Acne Rosacea.—This acid, according to Kober, is the part of ergot that causes gangrene. A five-per-cent. ointment, made with an extract rich in the acid, gives very satisfactory results in acne rosacea. Other vascular conditions, as lupus, scars, nævi, etc., are also much benefited by it. The application is painless.—*Ann. de Dermat. et de Syph.*, Feb. 25, 1886.

Fenn (C. M.) on Permanganate of Potash in Carbuncle.—I have reason to believe that in my practice several cases of anthrax have been materially abridged in duration, if not aborted, by the use of this remedy. The method is simple, harmless, and worthy of trial.

As soon as the vesicles give way, exposing the characteristic cribriform openings, gently express a portion of the contents of the tumor and replace with a strong solu-

tion of potassium permanganate. This may be introduced twice a day with a grooved director or hypodermatic syringe.

It is understood, of course, that this salt is readily decomposed by contact with organic matter, but meanwhile something has been done to diminish the tendency to sepsis and toward "resolving the inflammation."

As carbuncle is not merely a local lesion, the systemic condition of the patient should be attended to and pain mitigated.—*So. California Pract.*, May, 1886.

Gautier (L.) on the Abuse of Carbolic Acid.—The author in the *Rev. de la Suisse Romande*, cites many cases of irritation produced by even dilute carbolic solutions. Varicose ulcers, furuncles, small phlegmons are frequently maltreated by carbolic dressings.

In traumatisms, when the wound is not simple, when the neighboring skin is more or less severely contused, carbolic acid is often hurtful. A simple wound is, according to M. Gautier, the prime indication for the use of carbolic acid.—*Rev. de Therap.*, May 1, 1886.

Fieuzal on Lemon Juice as a Caustic in Pseudo-membranous and Diphtheritic Conjunctivitis.—With a brush saturated in fresh lemon juice he touches the diseased parts, leaving it in contact with the false membrane some minutes, or even using some friction. He washes the part with tepid water and immediately applies a 2% solution of silver nitrate to only those parts which are not infiltrated, but which are the seat of inflammatory swelling. The lemon juice has an antiseptic and vascularizing action.—*La France Méd.*, May 18, 1886.

Trousseau (H.) on Iodol in Ocular Therapeutics.—The author concludes that iodol can sometimes replace iodoform and lacks its bad odor; that it is well tolerated by the eye; that it improves or cures ulcerating blepharitis, chronic conjunctivitis, and certain cases of vascular keratitis; that it is very efficacious in conjunctivitis, phlyctenular keratitis, and in torpid ulcers of the cornea. In solution it modifies granulations. As an ointment he combines it with vaseline 1-5, as a solution he uses iodol 3 parts, alcohol 35 parts, glycerine 62 parts.—*L'Union Méd.*, May 22, 1886.

Woodbury (F.) on Physic-Tippling and Medicine Bibbing.—In a paper before the Pennsylvania State Sanitary Con-

vention the writer referred to the rapid increase in the consumption of such drugs as the bromides, chloral, opium, etc. It is said that of chloral hydrate one ton a day is consumed in England and America. He then spoke of the causes of the increase. A large portion of the death-rate among children was attributed to the abuse by the parents of medicines acting on the nerves. The injurious effects of patent medicines were considered. In conclusion he recommended :

1. The examination of all proprietary medicines by a government or state commission of experts, who shall have the power to permit the sale of such as are harmless or especially likely to prove serviceable, and to prohibit the sale of all which are peculiarly liable to do injury, and those which are found to be worthless and frauds upon the public. Such a commission was appointed by the Japanese Government several years ago, and has been found to be of great service in that country. •

2. The instruction of the public to properly estimate drugs, and to regard every unknown medical agent as dangerous and endowed with capacity for harm. Let them escape the caustic criticism of *Molière* upon those who pour medicine about which they know little into bodies about which they know less, in order to cure disease about which they know nothing at all.—*Med. Record*, May 29, 1886.

Mouisset on the Influence of Refrigeration on the Typhoid Lesion of the Intestine.—The paper was based on a severe case of typhoid fever, having early and severe signs of double broncho-pneumonia. The patient, a woman of twenty, was thoroughly treated by the cold bath, and all her symptoms, even those produced by the broncho-pneumonia, were much improved. The patient died of the pulmonary complication on the twenty-first day. On the autopsy the lungs were found splenified. In the intestines the Peyer's patches were found enlarged and elevated, but not, to the naked eye, ulcerated.

The point the writer makes is that the intestinal lesions were arrested or limited in their development by the refrigeration, proving that the cold bath does not aggravate but ameliorates the intestinal lesion.—*Lyon Méd.*, April 4, 1886.

Butte (L.) on the Intestinal Lesions Caused by Drastic Poisons.—Colchi-

cine and veratrine cause a hyperæmia of the intestinal mucous membrane. That caused by the former is more active and extensive, submucous ecchymoses and enteritis occupying three quarters of the small intestine, while with veratrine the congestion is less intense and occupies only the duodenum and the first part of the jejunum. The ulcerations are not alike; those formed by colchicine are small, round, and of a punched-out appearance; those of veratrine being a little larger, less sharply cut, and having a central elevation. In both cases the large intestine is the seat of an extremely active hyperæmia.

When croton oil is taken by the mouth, the reddening is deeper and more uniform. The submucous tissue contains vast black ecchymoses; the ulcerations are round, much smaller, and more superficial.

With colocynth there is a slight congestion of the duodenum, with small, superficial ulcerations. The rest of the small intestine is not reddened. The large intestine is violently inflamed and has longitudinal projecting bands of a blackish red, very regularly arranged.

The probable explanation of all these lesions is that the poison tends to be eliminated by different parts of the intestine, and hence irritates these parts.—*Annales d'Hyg. pub.*, April, 1886.

Sniatkoff on the Internal Use of Naphthaline.—In the *Médits. Obozr.*, Fasc. xix., 1885, p. 630, Dr. A. Sniatkoff, of Vologda, furnishes the results of his observations on the therapeutic action of naphthaline, which he administered in two-gramme daily doses in capsules or powder. No symptoms of gastric irritation were ever observed, and only once (in a case of intestinal tuberculosis) the drug caused abdominal pain and increased diarrhoea. Sometimes ("in less than half of the cases") an increase in the frequency of micturition, and slight burning in the urethra, as well as a more or less intense carmine-red discoloration of urine, occurred. The author is inclined to attribute the latter symptoms to an impurity of the preparation used, since they were absent when he subsequently employed a notoriously pure drug. In several cases of dyspepsia, naphthaline rapidly arrested all symptoms caused by decomposition of gastric contents. In a case of acute gastro-enteritis in an adult, diarrhoea ceased after

one day's treatment. As rapidly, a case of infantile summer diarrhoea was cured. In several cases of chronic gastro-enteritis in adults, the drug speedily removed nausea, eructation, heartburn, distension of the belly, and sometimes improved appetite, but did not relieve constipation, while an obstinate case of diarrhoea (where opium, bismuth, nitrate of silver, lead, etc., had previously failed) yielded to naphthaline in four days (to eight grammes of the drug). In two severe cases of dysentery, cure followed in ten and five days under the administration of ten grains of naphthaline with ten grains of subnitrate of bismuth, four times a day. In two cases of enteric fever, naphthaline seemed to make the symptoms still worse. The author's general conclusion is that naphthaline represents a good antiseptic and antifermentative for the gastro-intestinal tract, in the absence of typhoid or tuberculous ulcerations. In that regard, the author places the drug above carbolic acid, creasote, thymol ("which, being taken internally, do not reach the lower portion of the bowels"), and even at a higher clinical level than calomel. The antiseptic action of the latter drug undoubtedly reaches deep tissues, while that of naphthaline limits itself to the surface; but calomel possesses a strong purgative action, its effects are inconstant, and its use may lead to mercurialism.—*London Med. Record*, May 15, 1886.

Gopadze (F.) on the Physiological Effects of Massage.—He has investigated the history of the subject, and finds traces of it in a Chinese work 3000 B.C. He finds that though there has been a general tendency amongst authors to assume that massage increases the assimilative power, no exact observations on the subject have hitherto been published. He therefore obtained the co-operation of four medical students, who for three consecutive weeks became inmates of Professor Manassein's clinic, and lived on certain articles of food—bread, milk, soup, veal, and roast beef, the quantities ingested being accurately noted. The nitrogen in all the samples of food, and in the fæces and urine excreted, was determined by the Kjeldahl-Borodin process. Massage was practised for from twenty to twenty-five minutes once a day two or three hours after food. The operations were commenced by *effleurage*, beginning from the extremities and working towards the centre. This was followed by

massage à friction, pétrissage, tapotement, a second *effleurage* of each part concluding the whole. The temperature was subsequently taken, and in some cases sphygmographic tracings. In all four cases the appetite was decidedly increased, not only during the week in which massage had been practised, but after it had been stopped; thus, one of the subjects took an average daily quantity of 24.95 grammes of nitrogen during the first week, 30.97 during the second or week of massage, and 29.57 during the third week. Similarly the amount of nitrogenous transformation was augmented during the continuance of massage in all four cases. The augmentation persisted in two of the cases, but in the other two the transformation was less during the third than during the first week. The quantity of nitrogen assimilated increased in all four cases, independently of the amount of food ingested. During massage two of the subjects gained slightly in weight, the other two losing weight; but during the week following the one in which massage was practised all four gained. The axillary temperature decreased for about half an hour after the operation to an extent varying from 0.1° to 0.5° C., after which it began to rise, attaining its original figure, or from 0.1° to 0.3° below it, about an hour after the *séance*. The respirations became more frequent, and were of a deeper character. The effect on the pulse varied with the character of the massage. When this was carried on lightly, the pulse became more frequent; but when the manipulation was more forcible, the pulse became slower. The effects in both cases persisted for an hour or more after the termination of the operation. In conclusion, the author suggests that massage should prove useful in chronic gastro-intestinal catarrh, in chronic constipation due to an atonic condition of the intestines, also in various cases where there is a lack of tone in the abdominal muscles.—*Lancet*, May 22, 1886.

Murrell on the Treatment of Constipation by Massage.—In the introductory lecture to the course of Pharmacology and Therapeutics delivered at the Westminster Hospital Medical School, Dr. Murrell referred at some length to the good results recently obtained in the treatment of habitual constipation by means of massage. The method he employs is a modification of that originally introduced by Mezger and Von Mosengal. *Pétrissage*

of the abdomen is of essential value, the manipulations being performed in the direction of the ascending transverse and descending colon. It is usually associated with various forms of *tachyplemia*, for the production of which the open hand, the partly-closed hand, or its radial or ulnar border may be employed. Vibratory movements are resorted to in obstinate cases, and it was stated that the action was usually remarkably prompt and certain. The best results were obtained in cases of constipation associated with obesity, especially when the patient was unable to take much exercise. It probably acts in three ways (1) by increasing the intestinal and other secretions; (2) by stimulating the peristaltic action of the intestines, and (3) mechanically by pressing the accumulated feces towards the rectum. The treatment is well-known on the continent, and will doubtless in time be generally recognized in this country.—*Med. Press*, May 19, 1886.

Marsh (C. J.) on the Use of Quinine in Chronic Dysentery.¹—In the spring of 1880, a man about thirty-five years of age applied to me for treatment of a chronic dysentery of four years' standing. He gave the following history of his case:

Four years previous to his coming under my care he had been attacked, while working on a Mississippi river steamer, with acute dysentery of a violent type, for which he had, I presume, the ordinary treatment, and made a partial recovery. He had, however, never at any time been entirely well, as the stools all the time were of a more or less dysenteric character.

When he came to me he was much emaciated, and suffered a great deal of pain, both day and night, as the bowels moved from twelve to twenty times during the twenty-four hours, the discharges being of the typical dysenteric character.

On the supposition that there was more or less of a malarial element in the case, I gave him five grains of quinine three times a day in capsules.

In connection with the quinine, to relieve pain and tenesmus, and to secure rest to the bowel, and to facilitate the healing of the ulcers of the mucous membrane, I gave him a pill three times a day before meals, composed of subnitrate of bismuth, five grains, nitrate of silver and morphine, each one-eighth grain, with enough extract

of gentian to make a mass. I gave him also an occasional laxative dose of castor oil at night. By following out this course of treatment, with proper regulation of diet, he made a perfect recovery in three months.—*Therap. Gaz.*, May 15, 1886.

Rogers (H. C.) on Fluid Extract of Kava Kava in the Treatment of Gonorrhœa.—In none of the cases was there any trouble with the stomach resulting from the use of kava kava. In over one-half the appetite was improved and increased. In one case the peculiar effect of the drug was manifested. The patient was a married man, whose wife was in the country when he contracted the disease. As he expected her home in three or four weeks, he was anxious to get well. Under the influence of this feeling, he took much more of the drug than had been prescribed. Instead of taking it every four hours, he took it every three. At the end of the third day, I was sent for. I found my patient suffering from a mild form of delusion. I stopped the medicine and gave a small dose of opium. By morning he was feeling all right. This is the only case that showed this symptom.

The usual prescription is from twenty to thirty minims of the fluid extract of kava kava, in water, to be repeated every four or five hours, as the case may be. The patient is restricted to plain food and plenty of milk, with Vichy water. He is not allowed to indulge in alcoholic drinks, in tea or coffee. Smoking (if he has the habit) must be given up for a time. The bowels must be moved gently, and care must be taken that the patient does not become constipated. From what I have seen, however, in connection with the use of the drug, I am inclined to think that it is mildly laxative, as all my patients, while taking it, had one or more movements from the bowels each day. The average duration of the disease under this treatment has been nine weeks.—*Med. Record*, May 8, 1886.

Holden (J. S.) on the Salicylic Treatment of Glycosuria.—A fresh impulse has been received with regard to the treatment of glycosuria, or diabetes, from the recent valuable researches of Professor Latham on the pathological connection between diabetes and rheumatism. Dr. Latham considers that there are two distinct kinds of diabetes. First, there is that which arises from a neurotic disturb-

¹ See *Ther. Gaz.*, Apr. 15th.

ance of the function of the liver ; this has the effect of arresting the metabolism of the glucose, and allowing it to pass unchanged into the general circulation and appear in the urine. Second, that which arises from a neurotic disturbance of the function of muscle ; this allows glucose to form in that tissue, and to pass unchanged into the general circulation and appear in the urine. He has also shown that this second kind of diabetes is intimately connected with rheumatism ; so intimately, that a degree of more or less oxidation determines whether the muscular tissue generates an abnormal amount of lactic acid or of glucose in the system. Moreover, he has shown that, when salicylic acid is administered, it has the property of arresting the formation of both lactic acid and glucose, by means of a chemical combination which it forms with the antecedents of these products.

The first and most marked effect of the salicylic treatment in the glycosuria of rheumatic persons, is the almost complete removal of the distressing polyuria which accompanies it.

In one case, after four days' treatment, the daily evacuation of urine was reduced from twelve to four pints, and, in all the cases, this effect was one of the earliest and most constant ; at the same time there was a considerable fall, both in the specific gravity of the urine and its proportion of sugar ; even when the treatment fails to remove the sugar entirely, it reduces it to such a trifling amount, that the patient is unconscious of any ailment, and gains in flesh and strength. This improvement persists for weeks after suspending the medicine, as is the case with two patients now under observation ; the quantity of urine never exceeds three to four pints in the day, nor does the specific gravity rise above 1028 or 1030, though containing sugar. Even this condition must be safer and less serious than when the patient is passing daily nine to twelve pints of saccharine urine, of a specific gravity of 1040 and upwards.

As to diet, the careful restriction which is so imperative in the diabetes of hepatic origin is not so necessary in this kind ; still I think it greatly helps to restrict the formation of glucose in the system, by prohibiting potatoes, farinaceous puddings, and sugar, as much as possible.

In administering salicylic acid, the fol-

lowing mixture has given good results :
 R Salicylic acid 3 ii, bicarbonate of soda 3 j, carbonate of ammonia 3 j ; mix in water ℥ i, and, when effervescence has subsided, add water to ℥ xii. An eighth or twelfth part to be taken three times a day. This is a soluble neutral mixture, and is not unpalatable when given in a wineglass of water, with a little tincture of orange-peel added. The ammonia prevents any depressing effects. I have tried the free acid made into three-grain pills with mucilage, as recommended by Dr. Latham in rheumatic fever, but have not found them superior to the mixture, while many patients object to swallowing five or six pills as a dose.

It is a matter of much importance, with regard to treatment, to be able to distinguish between the two kinds of diabetes. The presence or absence of rheumatic arthritis, pains, and cramps, is often sufficient ; but Dr. Latham has recently called attention to a more certain mode of distinguishing between the two, as he has found that in the diabetes of rheumatic persons—that is, originating in the muscular tissue—the urine contains some substance which dissolves cuprous oxide ; so that a larger quantity of Fehling's test has to be added before getting the brown precipitate in this urine, than in the diabetic urine of hepatic origin. I have lately been able to confirm this observation.

To judge from the proportion of cases of diabetes in rheumatic persons which I have met with in this neighborhood, this kind of glycosuria can be by no means rare ; and the early treatment of it with a salicylic acid offers a real hope of cure, or, at any rate, it will relieve and prevent that tendency to wasting and exhaustion which has but one issue.—*Br. Med. Jour.*, May 1, 1886.

Lucas (J.) on the Fluorides of Ammonia and Iron.—Dr. John Lucas of Bombay has employed the fluoride of ammonia in the treatment of hypertrophy of the spleen. The drug appears to have antipyretic and antiperiodic properties, as proved in cases of ague. Nausea was produced at first, but afterwards large doses could be borne. The appetite, after a time, improves under its use. By giving the drug after meals its nauseant and purgative actions are greatly lessened. "It certainly appears to possess the merit of excelling any other method of treatment of

hypertrophied spleen with which we are acquainted." Dr. Lucas began with five-minim doses, but in future would be disposed to give twenty, or even thirty, minims well diluted. The fluoride of iron would, perhaps, be preferable to the ammonia salt, on account of its hæmatinic properties.—*Lancet*, May 22, 1886.

Poulet (V.) on the Emmenagogue Action of Oxalic Acid.—The solution used by the author is as follows :

R	Oxalic acid	gr. xxx.
	Tepid water	℥vj.
	Syrup of bitter orange peel . . .	℥ij.

Dose.—A tablespoonful every hour.

The author claims that this agent suits equally well cases where there is a fibrile condition, where there are vicarious congestions or inflammations, or even hemorrhages, and in states of general weakness, or in suppression of the menses from exposure to cold. He asserts that it calms the pains of dysmenorrhœa by remedying the latter condition. In the amenorrhœa of chloro-anæmia the general health, of course, should be first treated. It apparently has no abortive action.—*Gaz. Hebdomadaire*, May 14, 1886.

Gulick (C. H.) on the Use of Malt Liquors in Functional Disturbance of the Heart.—A man, after an attack of measles, had acute lobar pneumonia, for which he was not treated. This in turn was followed by severe bronchitis, and Dr. Gulick was called in. The patient did well under treatment; little if any pleuritic thickening was left, and no organic disease of the heart was to be discovered, but he began to suffer with palpitation of great severity and persistency, which proved very refractory to treatment. Electricity was first used, then quinine, and then digitalis. The use of the drugs was pushed to the fullest extent, and finally Duquesnel's digitalin was used hypodermically, but this proved exceedingly objectionable to the patient, and lager beer was ordered. Within seventy-two hours marked improvement was observed. At first the improvement was imputed to the use of the drugs, but the question was tested by withholding the beer and continuing the use of the medicines. Within three days the palpitation returned in all its original severity, but was again removed, never to return, by suspending all medication except the use of the beer. There was no gastric disorder in the case. Dr. Gulick commends the use of

lager beer in rebellious cases of functional derangement of the heart.—*N. Y. Med. Jour.*, May 22, 1886.

Eloy (C.) and Huchard (H.) on White Quebracho Bark and its Active Principles.—The active principles of quebracho have little action on the general sensibility of mammals. They cause an increased galvanic excitability of the phrenic nerve. In large doses aspidospermine causes convulsions, in smaller doses tremors, and in massive doses quick paralysis. An aphonia, probably due to paralysis of tensors of the vocal cords, is seen in hares. The other active ingredients have a somewhat similar action as regards paralysis—aspidospermine slows the heart while aspidospermatine accelerates it. Aspidospermine increases the amplitude of respiratory movements in the proportion of 1-5, and their rapidity in the proportion of 11-12. This augmentation continues three or four hours. It excites costal more than abdominal respiration. Quebrachine lowers the temperature 5-7° (C.) in ten minutes. Under its use also the venous blood becomes rosy or of a currant red. Most of the active ingredients increase the renal, salivary, and intestinal secretions. All can kill, the residuary product being the most toxic, death being due to asphyxia, caused by paralysis of the respiratory muscles.—*Arch. de Physiologie*, April 1, 1886.

Vigier on the Incompatibility of the Bromide of Potash and Calomel.—The incompatibility of calomel and the iodide of potash is well known. The same reaction occurs between calomel and the bromide of potash, only it is less intense. It is of course hardly likely that any physician would prescribe them together, and five or six hours should intervene between the two medicines. It might happen that, in a case of infantile convulsions, two physicians might be called successively, one ordering calomel and the second bromide of potash. It is conceivable that serious results might follow such medication.—*Gaz. Hebdomadaire*, May 7, 1886.

Coze on the Physiological Action of Urethan, Particularly as an Antagonist to Strychnine.—The author concludes :

1. That urethan has a manifest hypnotic action, producing muscular relaxation, and in large doses anæsthesia.
2. It slows the pulse and respiration and lowers temperature.

3. It has no local irritant action and can be given hypodermically.

4. It disturbs neither secretion nor nutrition.

5. It is the physiological antagonist to strychnia.

6. It is indicated in convulsions in general and tetanus in particular.—*Bull. Gén. de Thérap.*, April 30, 1886.

Mays (T. J.) on the Physiological and Therapeutic Action of Hydrastine.—*Hydrastis canadensis*, or golden seal, as it is commonly called, has been long and favorably known and used by the eclectic practitioners of this country. It is claimed by them, and with good reason too, that it exerts a powerful tonic influence upon the mucous surface of the alimentary canal, nasal passages, etc., when administered internally, and externally it has proven itself an excellent remedy in chronic mucous inflammations of the eye, mouth, bladder, etc.

In 1851, Mr. A. B. Durand discovered a powerful alkaloid in the plant, which was further investigated by Mr. F. Mahla, of Chicago, and which is now called hydrastine. Dr. King¹ the ablest exponent of that school of medicine, attributes the therapeutic action of the plant to this alkaloid. The latter has recently received a good deal of attention from various experimental physiologists, among whom are Slavatiniski², Fellner³, Bartholow⁴, and others.

I think the following *résumé* comprises the chief points in previous experiments on the action of hydrastine, viz.: That in small doses it elevates and in large doses depresses the blood-pressure; that in small doses it produces contraction and in large doses dilatation of the vascular walls; that through the period of elevated blood-pressure it inhibits cardiac action; that in small doses it produces anæmia, and in large doses hyperæmia, of the alimentary surface; that it induces uterine contractions; that it enhances the irritability of the motor and depresses that of the sensory nerves; and that it exercises its control over all these organs through a central and not through a peripheral influence.

The results of my experiments on the frog may be summed up as follows:

1. That it produces paralysis in the early stage of poisoning, which is followed by convulsions.

2. That the convulsions are chiefly spinal in their nature.

3. That a stage of hyperæsthesia precedes that of convulsions.

4. That it depresses sensation or blunts sensibility when locally applied.

5. That it affects the posterior before the anterior extremities.

6. That it affects sensation before motion.

7. That it affects the sensory nerves principally from the centre to the periphery, and not *vice versa*.

Experiments in man show that in the healthy organization it has a decided affinity for the circulation,—slows the heart, and in all probability elevates the blood-pressure, and also produces local anæsthesia, therefore confirming the experiments which have been made on the lower animals.

Its influence on the circulation in man is certainly pronounced enough to make itself sufficiently obvious; and, when this fact is coupled with the interesting observation of Dr. Fellner, already cited, that in the lower animals it constricts the capillary circulation to such an extent that it produces anæmia of the mucous surfaces in small doses, it should be a valuable agent in the treatment of all hyperæmic and catarrhal conditions of these organs. Especially is this assumption pertinent when we reflect that it has the power to counteract a relaxed capillary circulation, a condition which, in the great majority of instances, is associated with such hyperæmiæ.

Its anæsthetic action, which is not so striking as that of cocaine or brucine when locally employed, nor so evident as that of theine when subcutaneously introduced, is still remarkable for remaining unobserved so long in an agent which is one of the most popular remedies of the day. It has been used locally to soothe irritable surfaces for more than a quarter of a century, yet the credit of first perceiving its local anæsthetic effect on man in a clinical way belongs to Dr. Charles H. Burnett, Professor of Otology in the Philadelphia Polyclinic, who, but quite recently, called attention to this fact in a contribution to *The Polyclinic* for December, 1885, entitled "Hydrastis with Boracic Acid in the Treatment of Otorrhœa."

¹ American Dispensatory, p. 432.

² *Med. Obssernte*, Nov. 16, 1884.

³ *Cent. f. med. Wissen.*, Nov. 24, 1884.

⁴ Lloyd's "Drugs and Medicines of North America," vol. i., p. 156.

Dr. Edward T. Jackson, while experimenting with a number of mydriatics a few months ago, was the first to notice that hydrastine dilates the pupil to some extent when applied locally.

Dr. William Rutherford, of Edinburgh, Scotland, in his work on "The Physiological Action of Drugs on the Secretion of the Bile," found hydrastis—a resinous substance prepared from the root of the plant by Keith & Co.—to be a moderately powerful stimulant of the liver.

From what has been said, I think it is evident that hydrastine, on account of the properties which it is shown to possess, is most applicable in catarrhal states of the stomach, bowels, eye, ear, nose, and throat, although it is also indicated in other diseased conditions. A familiar picture to the physician is a combination of the following symptoms: An uneasiness in the gastric region and some eructations after eating, impaired appetite, irregular bowels, coated tongue, bad breath, yellow-tinged conjunctiva, etc. This condition is very much benefited by the administration of hydrastine in $\frac{1}{4}$ to $\frac{1}{2}$ grain (Merck) doses before each meal.—*Therap. Gaz.*, May 15, 1886.

Slavatsinski (A.J.) on Hydrastine.—He gave the drug to a number of pregnant bitches and rabbits, as well as to other animals, and found that when introduced into the blood in doses of not less than a hundred-thousandth of the body weight, or one centigramme per kilogramme of the body weight, it acts as a stimulant to the spinal cord and medulla oblongata. In medium doses it paralyzes the vaso-motor centres, thus decreasing the blood-pressure. It acts on the heart first as a stimulant, and afterwards as a depressant of the motor ganglia. No effect seems to be produced on the peripheral branches of the pneumogastric. The augmentation of the cardiac contractions begins from the spinal cord. At first the secretory and convulsive centres are stimulated and afterwards paralyzed. Hydrastine, in doses of from 0.01 to 0.03 grm. per kilogramme of body weight, was found to act as an ecboic in pregnancy, and to produce contraction in the fibres of the non-pregnant uterus. At a certain period of pregnancy, which for the human subject is about seven months, the drug, in the same small doses (0.01 to 0.03 per kilogramme), if repeated a few times, appears to cause a miscarriage. Dr. Sla-

vatinski suggests that if further experiments show that hydrastine may be used without danger to the mother, it may well replace the use of instruments in cases where premature induction of labor is required. He considers that hydrastine and its salts are more reliable than other preparations of the root. With regard to the dose for therapeutic purposes, he puts the maximum daily quantity at 0.3 grm. when given hypodermically, but would give doses of 0.5 grm. internally.—*Lancet*, May 22, 1886.

Marshall (J.) and Wood (H. C.) on Hamamelis Virginica.—The enormous sale and mysterious properties of hamamelis have led us to undertake an investigation of the drug.

The results which we have reached with hamamelis are in accord with those of Dr. Hector Guy, of Paris, who came to the conclusion, as the result of numerous experiments, that hamamelis Virginica is not toxic; that it has no special physiological action on the vascular system; and that it contains no alkaloid. We have shown that there is a very large percentage of tannic or gallic acid in the fluid extract, and the results which have been obtained by some physicians by the use of this fluid extract in cases of hemorrhoids and varicose veins are apparently explained by the presence of the astringent principle. The tannic acid, of course, would not come over in the distillation; therefore the much-used and still more lauded witch-hazel, or the so-called distillates of witch-hazel, must depend for their virtues upon the alcohol which they contain and the faith which they inspire.—*Therap. Gaz.*, May 15, 1886.

Pattee (A. F.) on Potassium Chloride.—He has used potassium chloride in many cases of anæmia with success, after other remedies had failed. He had found it of benefit, also, in the first stage of hepatic cirrhosis due to alcoholic excess. Inflammatory exudations with effusion of lymph, particularly pelvic cellulitis, have quickly disappeared under its administration. Glandular enlargements, also, subside. In stomatitis it is equal in efficacy to the chlorate. He had used it, also, in ovarian neuralgia and menstrual headache accompanied by insomnia, and had found it more reliable than the bromides. Combined with corrosive sublimate, it is one of the best remedies for syphilis. The tincture of the chloride of iron is also ren-

dered more effective by the addition of this salt.

In the treatment of cellulitis he had given the remedy in the dose of ten grains every three hours, sometimes more, sometimes less. Regarding its use in epilepsy, he had found it most serviceable in anæmic cases. He had used it in cases in which the bromide of sodium had produced alarming depression. He had never used it in goitre.—*Four. Am. Med. Ass'n*, June 5, 1886.

DaCosta (J. M.) on Erysipelas Treated with Pilocarpine; Rapid Defervescence and Decline of All the Symptoms.—This treatment has been growing upon me for some years, and I can say that I believe it to be of value. You know that the usual treatment is by iron and quinine. Certainly these agents do exert some influence upon the disease and relieve the inflammation. We, however, have had better results from the jaborandi than from the preceding mode of treatment. My experience, of course, is more with what physicians call erysipelas, and in one case, where it seemed to follow a sprain, there may be a question whether or not it was the surgical form. I will confine myself, however, to my own observation, and speak of erysipelas as it comes under the eye of the physician, and I will say that I know nothing that has such an effect upon the course of erysipelas as jaborandi and its active principle, pilocarpine. They have been, in my hands, of special service in cases in which the heart is not feeble nor the vitality depressed; and in those in which there is an acute beginning with high temperature, and with a tendency to rapid spreading. The demonstrated value of the pilocarpine treatment in this class of cases renders it probable that it may also be of service in surgical erysipelas, and I have recommended it to our surgeons for trial.—*Med. Times*, May 15, 1886.

Ether and Chloroform Once More.

—The following little item from one of the Boston daily papers contains some interesting information, and some remarks thereon, which require comment.

"Four deaths, resulting from the administration of chloroform for surgical purposes, have occurred at a New York hospital within the past month. The last case was the subject of an inquest by the coroner, who impanelled a jury of surgeons to sit

upon it. A verdict was brought in exonerating the physician who gave the chloroform, and stating that no existing method of administering anæsthetics was absolutely free from danger. This is doubtless true enough, but the fact remains that surgeons are too frequently reckless in the use of chloroform. In performing operations of a serious nature, it is usually necessary to employ it, since there is no good substitute. Ether cannot be given in sufficient quantities to produce the total anæsthesia required. But, unfortunately, it often happens that doctors administer chloroform simply because it is more convenient, and take their chances of the result, notwithstanding the fact that no physician can possibly be sure when he gives it, that his patient will ever return to consciousness. There is always a very large chance that death will ensue from paralysis of the heart. The use of ether, on the other hand, is almost perfectly safe, and, except in cases where total anæsthesia is absolutely required, the employment of chloroform should be legally prohibited."

Whether the testimony at the inquest furnished the authority for the statements of the reporter we do not know, but it is a mortification to see such an assertion in a Boston daily,—it is so far from the truth. In the hope that our comment will reach the eyes and understanding of some who may have already read the extract, we will repeat what must already seem stale to the majority of our readers.

Ether does produce total anæsthesia, and it is never necessary to use any other anæsthetic to obtain it. It is the only anæsthetic used at the Massachusetts General Hospital, the use of chloroform having been forbidden in the institution at least thirty years ago. At the Boston City Hospital, the anæsthetic to be used is left to the discretion of the surgeons. Here, chloroform is occasionally used by a surgeon for some particular reason, such as its non-inflammability, or its supposed advantage in irritating the throat less as it is inhaled, but never because total anæsthesia cannot be procured by ether, and probably not oftener than two or three times a year. With these rare exceptions, ether is the only general anæsthetic used. Probably as many "operations of a serious nature" are performed, and total anæsthesia is as often required in these two hospitals as in any hospitals of the same size, and while patients differ in

their susceptibility to ether, as to other therapeutic agents, chloroform is never needed nor desired by the surgeons because ether is insufficient.

Chloroform has certain advantages in its diminished bulk and non-inflammability, which may make its use a necessity, under certain circumstances, as in the medical department of an army in an active campaign. The story of its non-effectiveness is a fiction, under the cloak of which, certain men persist in their use of chloroform, simply because they have never taken the pains to inform themselves of the proper method of using ether, or because they fear they may be occasionally obliged to bestow a little more time upon a patient if ether is used.—(Editorial) *Boston Med. and Surg. Jour.*, May 6, 1886.

TOXICOLOGY.

Pétersen on Poisoning by the Berries of Rhamnus Frangula.—The writer in the *St. Petersburg Med. Woch.*, narrates a case as follows: A young boy four or five hours after swallowing the berries was attacked by vertigo, headache, loss of consciousness, clonic convulsions of the face, extremities, and masseters. The pupils were large, equal, reacted slowly to light. The pulse was small, and frequent, the respiration irregular.

The treatment consisted in cold affusions, injections, and emetics. Recovery occurred after several hours. The writer thought the poisoning was due to the prussic acid in the kernels as the child had chewed and swallowed them.—*Lyon Med.*, April 25, 1886.

Carson (J. C.) on a Case of the Opium Habit in an Idiot Boy.—On the 23d of April, 1884, application was received at the New York Asylum for Idiots, for a boy, B. M—m, aged eight years, twin-born, and a subject of the opium habit since the day of his birth.

The father of this boy was stated to be a native of New York, and was about thirty years of age when the twins were born. He is said to have been a healthy, temperate man, and had never been subject to any form of mental, nervous, or scrofulous disease. The application stated that the father's mother's sister married an own uncle, and had three idiotic and deformed children, with seven toes and seven fingers, all of whom were unhealthy.

The mother was a native of Ohio, and about thirty-six years of age at the birth of the twins. She had had four children previous to their birth, all of whom were still-born. She had always been healthy, except being troubled with neuralgia, for the relief of which affection she acquired the opium habit at twenty-eight years of age. Her family history, as obtained, gave no hereditary predisposition to any form of disease. It is stated that the *accoucheur* in attendance at the birth of the twins administered ergot to the mother, and about four hours after their birth she was seized with convulsions, which continued for two days following, when her death occurred. Aside from the effect of the ergot administered, the labor is said to have been a natural one, not requiring the use of instruments.

The applicant at birth weighed four pounds, and the twin brother two pounds. They were both very quiet, and lay peacefully resting until about six hours old, when they each almost simultaneously began worrying, crying, and at last began screaming, and kept it up without any indications of abatement for hours afterward. The mother being in convulsions at this time, it was thought her condition might be aggravated by the noise of the screaming infants, and it was suggested, prompted by the known habits of the mother (all other measures tried having ingloriously failed) to give them some opium.

The grandmother says she then took a bit of opium resin about the size of a grain of wheat, dissolved it in a little water, and gave each a teaspoonful. Its effect was almost magical, as in a few minutes they ceased their tossing and screaming, and slept quietly for six to eight hours afterwards. Then they again began to cry, or to "screech and jerk," as the grandmother says, and "kept it up" until the opium was again administered, and so on from time to time and the days and days that followed. Mrs. Winslow's, other soothing syrups, whisky, and various drugs, were tried in vain as substitutes for the opium, but opium alone seem to possess the charm to allay their "screeching and jerking," which followed each time about eight hours after its administration. It, too, was soon found to be losing its control, and the next step toward peace in the family was to increase the quantity, which was done accordingly as future occasions demanded.

At the end of the first month the smaller twin died in convulsions.

When five years of age the applicant had a severe attack of typhoid pneumonia, from which he eventually recovered, but during which he had convulsions. Subsequently, however, to his recovery from it he would have convulsive attacks, lasting for a few moments, several times a day, and about once in four to six months a severe epileptic seizure. During this sickness the opium was materially increased, and at the age of seven he was taking ten grains of solid opium every twenty-four hours, or in doses, three times a day, of three and one third grains each.

The grandmother relates that during these years she made repeated and desperate efforts to discontinue the drug to him, but each time, after about forty-eight hours' trial and endurance, the condition of the child would become so pitiful her courage would fail her, and it was again and again resumed. Soon after his seventh birthday, she says, she determined that the drug would eventually kill the child, and finally resolved it might as well die from the want of it as from its effects. She then commenced to diminish the quantity gradually from time to time, and by May, 1884, had succeeded in reducing it to one grain at bedtime. This amount she continued to give until his admission to the asylum in September following, or a year ago. Since that time no opium has been given to him. The matron tells me that he was restless and uneasy and did not sleep much for a few nights immediately following his admission, but otherwise she did not observe any ill effects from its complete withdrawal.

The grandmother says as soon as she began to reduce the quantity of opium the epileptic attacks became less and less frequent, and have now entirely disappeared, none having occurred since a year ago last May, the time of the opium reduction to one grain at bedtime.

Whether these twin boys, born of this mother, an opium-eater for seven or eight years previous, and in the habit of consuming, as her mother supposes, from ten to twenty grains of solid opium daily, and probably more during the natural anxieties of her pregnancy, really directly inherited this habit from her *in utero*, is one of the questions that arises from the history just narrated. Were the crying, the struggles, and the restlessness of these babes as de-

scribed, that commenced about six hours after their appearance into the world, due to the want of opium from an inherited opium habit, and obtained *in utero* through the medium of the mother's blood?

The opium habit has become so prevalent in civilized countries within late years, that children are probably born every day, the world over, of mothers addicted to it. Its influence over and the enslavement of the individual is so powerful, that I have deemed this case of sufficient importance to call it to your notice, hoping it might not only interest you as it has me, but also with a view of attracting attention to others of the profession, who, when having opportunities of observing similar conditions, will place them on record.—*Alienist and Neurologist*, April, 1886.

Stewart (M.) on Aconite Poisoning.—On the morning of March 29th, a man of fifty thinking he had caught cold, requested to be given a vial containing tr. aconite, that he might break it up, as he thought; but, having only a vague idea of the strength of the drug, he took nearly a teaspoonful. In about fifteen minutes he began vomiting severely, having a terrible nausea and constriction of the fauces.

In about half an hour I arrived, and attempted to administer an antidote per orem, but found it impossible to get him to swallow any thing, let alone retain it. The pulse at wrist could not be felt, and during the act of vomiting he would sink into an unconscious state, with a partial rigidity of all the voluntary muscles. He would remain in this condition from a few seconds to as many minutes, during which all heart action would apparently cease; then he would revive, to again relapse when the exhaustion attendant upon acts of vomiting was repeated. At this time the pupils were largely dilated, great incontinence of urine, speech of a thick, husky character, and restlessness very great, no position being satisfactory for two consecutive seconds.

I then injected a drachm of fl. ext. of digitalis in his arm, and continued every half hour the alternate injection of the digitalis with whisky and carbonate of ammonia. In about three hours the pupils began to contract, and vomiting and nausea were diminished somewhat, but dyspnoea and constriction of fauces continued to be very alarming.

In about five hours from time of taking he was able to sleep a little, and began to

recover rapidly, with occasional attacks of nausea and vomiting. He made a quick recovery, next day being able to sit up and take a good meal with the rest of the family, and no bad results are left, with the exception of an ugly swelling resulting in a slough the size of a silver dollar, where the hypodermic syringe was used on his arm.

In connection with the weak, irregular heart which the patient has, the wonder is that a direct synergist to that condition like the poison did not completely paralyze the heart.—*Med. and Surg. Rep.*, May 8, 1886.

Morrow (P. A.) on the Bullous Form of Iodic Eruption.—The following conclusions in regard to this eruption may be formulated :

1. The bullous form of iodic eruption is comparatively infrequent.
2. It has for its seat of predilection the face, neck, forearms, and hands ; exceptionally it may occur upon trunk and lower extremities.
3. There seems to be no definite relation between the amount of the drug ingested and the production of the eruptive accidents ; they may follow, indifferently, a single insignificant dose, or may appear only after the long-continued use of large doses.
4. In the former case, the incidental effects of the drug upon the skin depend upon idiosyncrasy ; in the latter class of cases the pathogenesis is more obscure.
5. The proneness of this eruption to develop in connection with cardiac and renal disorders would seem to indicate that these conditions stand in the relation of a determining cause rather than a mere coincidence.
6. The practical inference may be drawn that caution should be observed in the administration of iodide of potassium when these complications are found to exist.—*Four. Cut. and Ven. Dis.*, May, 1886.

Morrow (P. A.) on Arsenical Eruption.—The patient was a boy of eleven. In the latter part of February the child was suffering with chorea, and was put upon arsenical treatment, commencing with five drops of Fowler's solution, and increasing to sixteen drops three times a day ; it was decreased in quantity, because it caused conjunctival and gastric disturbances, with puffiness of eyelids and swelling of the ankles and feet. Some time in March an eruption developed on the body and extremities, which, according to the

mother's statement, always became intensified when the doses of the arsenic were increased, and began to disappear when the arsenic was temporarily discontinued. The lesion was erythemato-papular, the spots running together and forming patches. It presented many of the appearances of a rubeolous eruption, and was extremely itchy. The skin was rough, and in some places desquamating ; there was a grayish-brown, almost black, discoloration of the surface, especially marked over the abdomen and inner surface of the thighs. The dorsal surfaces of hands were occupied by a coating of a greenish color, cracked and fissured, resembling ichthyosis. The tongue was pale and flabby. The discoloration was evidently pigmentary, and could not be removed by friction with soap.—*Four. Cut. and Ven. Dis.*, June, 1886.

MEDICINE.

Bouchard on Antisepsis of the Digestive Tract.—Vulpien first recommended the salicylate of bismuth and iodoform, and Rosbach naphtaline as digestive antiseptics. Bouchard recommends the following mixture as an antiseptic for intestinal putrefaction :

Iodoform	gr. xv.
Naphtaline	gr. lxxv.
Charcoal	3 iii.

This powder is mixed with six ounces of glycerine, and a tablespoonful of the mixture is taken in a wineglass of water every two hours. For gastric derangement and putrid diarrhoea he advises the administration of gr. v. of naphtaline, with an equal amount of aromatized sugar, every hour. The fæcal matters lose their putrid odor, and their toxicity is much diminished. After naphtaline and iodoform come the salicylate of bismuth and sulpho-carbonated water as intestinal or medical antiseptics.—*Rev. de Thérap.*, May 15, 1886.

DaCosta (J. M.) on Emphysema Arresting Tuberculosis.—The patient is a woman aged forty-five, who brings a history of long-standing ill-health. She has been exposed to damp houses, has had malarial fever, and for some time past has been suffering from dyspnœa. She was once before in the hospital with symptoms much the same, but in addition there was evidence of lung consolidation, supposed to be tubercular.

She left the hospital in '83, remaining for a time in fair health. She says the cough entirely disappeared. While in the hospital she had some spitting of blood, which symptom has recurred twice since that time, and she has lost considerable flesh.

At the time of her admission she had been ill four weeks, and presented, with decided cough, râles through both lungs, and slight rise of temperature, which has, since her treatment here, subsided. The urine is normal.

As she appears this morning, her tongue is normal, her respirations 30 per minute; Pulse accelerated (108), and it has been continually as high, sometimes varying from 108 to 116 in twenty-four hours. She has no abdominal symptoms. It now remains to determine what significance this cough has. There is considerable expectation; the right lung is clear on percussion, with extreme resonance posteriorly, especially over the lower part of the right lung; the resonance is of higher pitch on the right than on the left side, and only very slightly increased upon deep breathing.

The physical signs are coarse râles under the right clavicle which mask the breath-sounds, but where we can distinguish the breath-sounds they are distinctly bronchial low down, while above they are feeble but *not* bronchial.

Left side: respiration is harsh, with moist râles, that mask the breath-sounds.

These sounds indicate:

1. Bronchial catarrh.
2. Consolidation at right apex.
3. Extreme resonance, with harsh breath-sounds, demonstrates emphysema of lower part of both lungs.

The history and signs point to bronchial catarrh of recent origin—acute without doubt.

She had emphysema for years. What relation has it to the consolidation at the right apex? Both are chronic, for our old hospital notes show it.

There is no evidence of hereditary phthisis, though at the time of her first admission to hospital, the signs were of phthisis.

The question now arises: How is it that she had this long interval of comparatively good health? This is the very interesting point.

Emphysema has arrested the development of consolidation of the lungs, which bore all

the signs of tuberculosis. Indeed, so true is it that a condition of dilated air-cells is thought favorable to tuberculosis, that we formerly tried to devise means to bring about emphysema, hoping thereby to arrest the progress of this disease; the reasons are not yet fully explained.

The patient's treatment, which was commenced February 25th, has been:

℞ Ammon. chlor. gr. x.
Tr. opii deod. gtt. vj.
Syr. prun. virg. 3j.
M. Sig.—Dose every hour.

since which time the cough and expectoration are lessened. She may now have less opium, and as soon as the acute condition of the catarrh is better we will administer cod-liver oil and iodide of potassium 10 grs. three times daily, which will relieve the dyspnoea and improve her general condition.—*Med. and Surg. Reporter*, May 22, 1886.

Musser on the Prevention of Phthisis in Mill Hands.—The writer stated that it was rather to prevent that state of the system which often leads to phthisis that he desired to make some suggestions. The suggestions more particularly referred to factory laborers. He showed that states of ill-health were common in this class of artisans, and asserted that it was very largely due to an inadequate supply of food, which was improperly selected and prepared, and to carelessness in attention to digestion. This cause obtained more largely than bad hygienic surroundings, or than the occupation itself.

If this be true the remedy proposed was to have the plan of the Willimantic Cotton Company used by all mill proprietors. That company has proved, by experience and careful calculation, that it pays them in quality and quantity of work done to supply milk to their boys and bouillon to their women twice daily, and that the health of the operatives is promoted and their lives prolonged thereby.—*N. Y. Med. Record*, May 22, 1886.

White (J. B.) on Eleven Cases of Phthisis Treated by Intra-Pulmonary Injections of Carbolyzed Iodine.—By this plan of treatment the most urgent symptoms were in all of the cases relieved so long as the treatment was continued. In two aggravated cases, though the symptoms which distressed the patients most were ameliorated and life apparently prolonged, they nevertheless succumbed to

asthænia a few weeks after treatment was discontinued.

The distressing cough always present in these cases was markedly controlled, and the expectoration, which, in some of the cases was excessive, was diminished materially by the injections. The patients' general health in some of the cases seemed to have decidedly improved. This was especially observed in one case, where expectoration one week after the first injection was reduced from ten ounces to one ounce in twenty-four hours, and in another case from sixteen to two ounces in the same period.

The prognosis seemed so unfavorable in one case that I rather hesitated to subject him to the treatment. Nevertheless, he revived so much after the first and second injections, that when I last saw him two months after I instituted the treatment, he appeared in every respect much improved in health and strength.

This case seemed especially unpromising of good results from treatment, as he had a very large excavation in the right lung, and a small excavation enlarging in the left apex, and though in every respect seriously ill, nevertheless responded immediately to treatment in the most satisfactory manner.

A paroxysm of coughing followed the injections in almost all the cases, but in a few minutes ceased, and for two or three days after, the coughing was less frequent and the expectoration diminished. The night-sweats which were quite profuse in some of the cases, seemed to be decidedly modified by the treatment.

In one case, Dr. Leaming stated, after auscultation of the chest, that the cavity in the right lung had "hardened walls," which was not the condition prior to the intrajection of carbolyzed iodine, and affords a valuable instance of the benefit following this plan of treating phthisis.

The following formula is the one which I have been using, and which seemed to occasion the least amount of irritability when injected :

R	Atropia	gr. $\frac{1}{4}$.
	Morph. sulph.	gr. ij.
	Tinct. iodine	3 iij.
	Acid. carbol. (pure)	gtt. xx.
	Glycerine	3 iss.
	Diluted alcohol, 20% to 30%, ...	3 iss.

M. SIG.—15 to 30 minims.

—N. Y. Medical Record, May 22, 1886.

Holt (L. E.) on the Non-Identity of Croupous Tonsillitis with Diphtheria.—In order to present more forcibly the points of contrast between the two diseases, the author arranged them in the following tabular form :

Croupous Tonsillitis.

1. Invasion abrupt.

2. Most marked general disturbance during the first two days; no tendency to asthenia.

3. Starts with a temperature of from 103° to 104.5°.

4. Pulse full and rapid.

5. Membrane of yellowish color; edges sharply defined; limited to tonsils; does not bleed when detached; superficial; not very adherent; no tendency to re-form after removal; appears early; does not spread.

6. Albuminuria rarely if ever present.

7. Reaches its height by the second day; by the fourth, the patient is generally convalescing.

8. Paralysis never follows as a sequela.

9. It is doubtful if it is ever contagious.

Diphtheria.

1. Much more often it is insidious.

2. Generally not much general disturbance before the third day, but after that marked tendency to asthenia.

3. Rarely high in the beginning, 100° to 101°, gradually rising till the fourth or fifth day.

4. When rapid it is feeble.

5. Color gray, sometimes greenish; shades off gradually; on uvula, soft palate, and pharynx as well as the tonsils; bleeds readily even without being detached; infiltrates the deeper tissues; adherent; strong tendency to re-form after removal; may not be seen the first or even second day; spreads steadily.

6. Albuminuria rarely absent.

7. Most commonly does not reach its height before the fourth day.

8. Paralytic sequelæ quite common.

9. Frequently spreads by contagion.

—N. Y. Med. Jour., May 8, 1886.

Riva on the Direct Treatment of Pulmonary Tuberculosis.—Phthisis being now generally held to be due to a special parasite, whose site of predilection is the lung, antiparasitic treatment naturally suggests itself. Owing to the great resistance of the tubercular germ, inhalations have proved inefficacious. Surgical treatment so far has not given good results, and it is not generally applicable. Professor Riva, in a paper read before the Italian Medical Association, thinks that injections into the pulmonary parenchyma offer the most chances of success. The injections should be made with a Pravaz's syringe, in an intercostal space in the axillary or the posterior region. He notes the slight effects of the injections, which cause no pain, and rarely cough, if a bronchus be injured. He

has seen the evening temperature lowered. He uses turpentine, creasote with alcohol (1 to 10), water being added until the mixture becomes clouded, bichloride of mercury (0.5 to 1,000), carbolic acid, etc.—*Gaz. Med. Ital. - Lombard—Lond. Med. Record*, May 15, 1886.

Zenner (P.) on the Value of the Knee Phenomenon in the Diagnosis of the Diseases of the Nervous System.—This phenomenon has been known to the profession since the simultaneous publications of Erb and Westphal, in 1875. Its clinical significance is attached to the fact pointed out by Westphal in his earliest publication, that it is present in health, and is absent in locomotor ataxia, usually disappearing at the very commencement of this disease. It may, also, be absent in anterior poliomyelitis and neuritis, when the lumbar portion of the spinal cord, or its nerves, are the seat of disease. It has been found missing in many cases of diabetes mellitus, and is sometimes temporarily abolished in chronic alcoholism, and after attacks of diphtheria.

Various examinations have been made to determine whether it is ever absent in health. Bürger missed it in 32 out of 1,409 healthy men; Eulenberg in 4.08 per cent. of healthy adults, and over 5 per cent. of children; Bloch in 5 of 694 school-children; Pelizæus examined 2,403 school-children, at first missed it in 6, but finally obtained it in every one. Jendrassik examined 1,000 persons, chiefly adults, not suffering with nervous diseases, and elicited the phenomenon in all but one, a case of diabetes mellitus.

The author then gave his own observations, which embraced the examination of 2,106 persons, all of whom were adults, and chiefly males. Of these, 1,174 were inmates of various insane asylums, the others, excepting 100 in the medical wards of the city hospital, were mostly in apparent good health. Of this number, the knee phenomenon was abolished in 28, 5 of whom had fully developed locomotor ataxia, 12 were in the earlier stages of the same disease, while 11 manifested no other symptoms of disease of the cord.

The cases of insanity were treated separately, because Westphal had shown that in such cases the absence of the phenomenon, even when there are no other symptoms, is strong presumptive evidence of disease of the posterior column of the cord, and be-

cause of its special value in diagnosing the form of insanity. Of the 23 cases of insanity with abolished knee-phenomenon, 10 were cases of general paralysis, and in 2 it was doubtful whether there was general paralysis. This is a large number, considering the fact that there were, at the time, very few cases of general paralysis in the asylum, only a small number more than those here given. This factor gains more importance in connection with another clinical manifestation, the condition of the pupils. We find in many cases, both of locomotor ataxia and general paralysis, what has been termed reflexory rigidity of the pupils—they do not respond to light.

Moeli, Thompson, and Siemering found in 4,000 insane 492 with rigidity of the pupil; 85 per cent. of these had general paralysis.

Of the 10 cases of general paralysis with abolished knee phenomenon reported by the essayist, 9 had pupil symptoms; of the two doubtful cases, 1 had pupil symptoms, while in the 11 other patients, only two had pupil symptoms. The absence of the knee phenomenon and the presence of reflexory rigidity of the pupils may, therefore, be of great assistance in making a diagnosis in an obscure case.

The author then spoke of the results he obtained in non-insane subjects. He examined 932 persons, not insane, in 5 of whom the knee phenomenon was abolished. Of these, 2 had other symptoms of locomotor ataxia, 1 was an old man of 94, with greatly atrophied tissues, and only two appeared to be in perfect health. It is possible that in the 2 latter there is already some incipient disease of the cord. But whether this be true or not, the presence of only 2 such cases in nearly 1,000 is so insignificant as scarcely to lessen the almost pathognomonic significance of this phenomenon. The fact that the phenomenon is sometimes absent in other pathological conditions, does not lessen its diagnostic significance in locomotor ataxia, for the other conditions can usually be easily distinguished. In the author's experience it is not so frequently absent in diabetes mellitus as might be inferred from the results of some observers. Rosenstein missed it in 6 of 9 cases, and Bouchard of 19 of 66. The author had recently examined 5 such cases, and found it present in all. In 1 of these it was very slight, and difficult to elicit, but in this case there were many other symptoms of loco-

motor ataxia. The author, also, believed that it was not often absent in alcoholism. He had examined quite a number of such cases at the hospital, and had examined 404 men at the workhouse, many of whom were, doubtless, hard drinkers, but had not found the phenomenon absent in these cases, although in two of them it was very slight. When absent in chronic alcoholism it had been restored by the administration of strychnine. This remedy had no such effect in locomotor ataxia—at least the author had seen several cases of ataxia in consultation, where strychnine had been given, and where the phenomenon remained absent.—*Med. News*, June 5, 1886.

Bonnewyn (H.) on the Treatment of Epilepsy.—During an attack he makes a deep cauterization of the calf with a large white-hot iron. Then, especially in children, he gives a powerful vermifuge four days in succession, in the morning on an empty stomach. He orders three light meals a day—7 A.M., noon, and 5 P.M. Constant care should be exercised as to the manner of life. Smoking must be prohibited. If the attacks recur, he applies to the calves, during an attack, a blister produced by water of ammonia confined under a watch-glass. This surface is dressed with an irritating ointment.—*Rev. de Thérap.*, May 15, 1886.

Abbot on Chorea Excited by Sudden Return of Hearing; Chorea Treated with Urethan.—He had seen in consultation, four days previously, a young girl, ten or eleven years old, of unusual intelligence; but rather delicate organization, who was suffering from the severest form of chorea, which for a week had resisted all the remedies employed. The attack was regarded by her physician as a reflex one, caused by excitement which she had undergone a few days before the attack began, from operations to remove growths from the nasal passages, and for elevating the membrani tympani of both ears by inflation. At the time Dr. Abbot saw her she was lying on a bed, on which she could be kept only by constant watchfulness, her arms and legs being in incessant and violent motion, and the head thrown from side to side spasmodically. She was unable to articulate, could swallow only liquids in small quantities, and with great difficulty, and made efforts at short intervals to clear the throat from abundant mucus. There was also some diarrhoea, pos-

sibly due to remedies which had been given. The nurse stated that there had not been more than half an hour's continuous sleep during the previous forty-eight hours. The case had a most serious aspect, as it seemed impossible for such unceasing muscular action to go on much longer without fatal exhaustion. Various remedies had been employed, among them large quantities of the different bromides, and arsenic in the form of Fowler's solution, the dose having been pushed as far as eight minims three times daily, without the slightest relief. On the contrary, the symptoms were continually growing worse. The need of sleep was such that Dr. Abbot advised the use of urethan in doses of ten grains or more every two hours until relief. Up to the date of this report the result has been most satisfactory. The father of the patient writes: "The urethan has had a wonderful effect. The child had dozed almost continually, waking up at intervals to cough up the mucus in her throat, and turning over on her left side and going to sleep. On Friday and Saturday nights, (the remedy was first given on Friday evening) she was uneasy about midnight, when we gave her a dose of twenty grains which quieted her *at once*; each time she slept an hour and a half. Her movements have diminished greatly and she sleeps naturally. She eats better and chews with closed mouth."—*Boston Med. and Surg. Jour.*, May 6, 1886.

Mann (E. C.) on a Case of Progressive Locomotor Ataxia.—After a clinical history of the case the writer describes the treatment and its results as follows: The patient was put on cod-liver oil and a combination of iron and phosphide of zinc, getting two grains of iron by hydrogen and $\frac{1}{4}$ of a grain of phosphide of zinc, thrice daily after meals. Galvanism of the spine and static electricity in the form of sparks taken from the lower extremities were used with caution daily. Improvement in the symptoms began to be manifest in one month. The iron and phosphide of zinc was now stopped, and for the next month iodide of potassium replaced it; improvement still manifest. Electricity continued daily. At the end of the second month the tribasic phosphate of silver took the place of the iodide, in $\frac{1}{4}$ -grain doses. The improvement now was more rapid. Electricity still continued. The patient went to Ocean Beach for the summer, con-

tinuing the treatment with the exception of the electricity. The pains had by this time completely disappeared, and there was great improvement in the motor inco-ordination. The vision never regained its normal acuteness, but the amaurosis was in this case always slight. The patient would not submit to my ordinary treatment by rest in bed, but walked every fair day out of doors. Two years have nearly passed, and this patient considers himself a well man. He has gone into a light, easy business, feels well, eats well, has no gastric trouble, no pains, sleeps well and walks very well. We think we may fairly consider this as an arrest of this generally intractable disease.—*Alienist and Neurologist*, April, 1886.

Hutchinson (H. A.) on the Care of the Insane Prior to Their Admission to an Asylum.—In many families there exists a prejudice in committing patients to a hospital, and to commit one of their afflicted members to an institution of this character is regarded as a disgrace both to the family and to the patient.

As a result of this prejudice many insane are treated at home by their friends and family physician, the objectionable lunatic asylum, with its every facility for the care of just such cases, remaining an insurmountable barrier to the patient's rapidly departing chances of recovery.

When these endeavors have signally failed to restore the patient to reason, and the unfortunate being has become incurable and broken down in bodily health, he is taken to the hospital, and the friends accompanying him entreat the asylum physician to care for him kindly, and are surprised if an unfavorable prognosis be given.

Many who have no friends to care for them, or in whom the insanity is of a dangerous type and unsafe to be cared for at home, are arrested and placed in jail, their period of residence varying, sometimes but a few days or extending for several weeks, until the court decides as to their insanity, and they are then committed to an asylum. It is at this very time, upon the first manifestation of the disease, the court should at once direct their admission to a hospital; for their residence in jail, where no means exist for their proper treatment, and, as is often the case, there are provided the barest necessities of life, is the time when judicious medical treatment and the care and

comforts of a well-appointed institution would effect their restoration.

Female patients have frequently complained to me of the disregard of the proprieties of life during their confinement in jail. No jail should be without a matron, whose duty should be to care for the female inmates.

Of forty-five patients committed to this hospital by order of the courts of the thirteen counties comprising the asylum district, sixteen were committed directly from the jails, and of this number but three recovered, though a large proportion were acute cases.

A no less important factor in the care of the insane is the time and manner of their removal thereto. The larger number of patients when admitted to our hospitals are in poor bodily health, and there can be no doubt the condition of many is made worse by the fatigue and exposure incident to the journey.

In acute cases the exhaustion following is often fatal. In this hospital fifty-nine deaths occurred during the past year; eight died whose period of residence was but twelve days, and two were in a dying condition at the time of their admission, and died within seventy-two hours after. One of these patients, suffering from acute melancholia, was in a state of collapse when admitted; the other, who had typhoid fever, was beyond the aid of all human skill when brought to the door.

Female patients should always be accompanied by some female friend, in whom the patient has confidence, and to whom she can make known her wants and necessities; the total disregard of these proprieties, as shown so frequently in female patients brought to asylums in the custody of men and who are perhaps strangers, is often attended with great mental excitement, prolonging the insanity, and operating largely against possible recovery.

All superintendents will agree with me, I think, in regard to the difficulty in obtaining a history of patients admitted to their hospitals, so often the friends hesitate or dislike to state the particulars of the patient's trouble, thereby embarrassing the physician in his future treatment of the case, and also acting as a hindrance to the patient's recovery.—*Med. and Surg. Reporter*, May 22, 1886.

Bystroff (N. J.) on Headache in School-Children.—The writer has ex-

amined 7,478 boys and girls, in the St. Petersburg schools during the last five years, and found headache in 868; that is, in 11.6 per cent. He states that the percentage of headache increases almost in a direct progression with the age of the children, as well as with the number of hours occupied by them for mental labor; thus, while headache occurred in only 5 per cent. of the children, aged eight, it attacked from 28 to 40 per cent. of the pupils aged from fourteen to eighteen. The author argues that an essential cause of obstinate headache in school-children is the excessive mental strain enforced by the present educational programme, which leaves out of consideration the peculiarities of the child's nature and the elementary principles of scientific hygiene. The overstrain brings about an increased irritability of the brain, and consecutive disturbances in the cerebral circulation. Professor Bystroff emphatically insists on the imperative necessity for permanently admitting medical men to conference of school-boards. Of palliative measures, he mentions methodical gymnastics, mild aperients in well-nourished children, steel in anæmic, bromides, inhalation of oxygen, and, in severe cases, a temporary discontinuance of all studies.—*Br. Med. Jour.*, May 15, 1886.

Wilson (R. B.) on the Treatment of Singultus.—"I have tried a remedy which works wonders, at least in simple cases, though I have never had the opportunity of trying it on cases of several days' standing. The remedy, also, is so simple that I suppose it is not new, yet I have never seen it recommended for the complaint, although it is very probable that it has been. It consists simply in giving the patient a good pinch or two of 'catarrh snuff' to produce immoderate sneezing. I have seen the happiest results from it in hiccough of as much as two days' persistence. A simple 'catarrh snuff' for the purpose may be made by mixing one part of powdered veratrum album with about four parts of pulverized licorice-root. Of course it may fail in very stubborn cases, but it never has thus far with me."—*N. Y. Med. Record*, June 5, 1886.

Cazalis on Hemi-Rheumatism, or the Predominant One-Sidedness of Simple Chronic Rheumatism.—This observer concludes:

1. In about two thirds of chronic rheumatics there exists a tendency towards a

predominance of arthritic manifestations on one side of the body, and that it is most frequently the right side.

2. When pulmonary congestions or a bronchitis of a rheumatic nature appear, they are located generally on the same side as the rheumatism. On that side too is most often seen the deformity of the great toe and its outward deviation.

3. Hemichorea and hysteria occur more often on the left side, while migraine, a form of arthritism, has a singular tendency to one-sidedness.

From these and other reasons the observer concludes that there may yet be found some truth in the theory that the central nervous system has a decided influence over the localization of chronic rheumatic manifestations.—*L'Union Méd.*, April 29, 1886.

Suckling (C. W.). Sequel to a Case of Myxœdema in a Woman Aged Seventy-Six.—In *The Lancet* last year I published an account of a case of myxœdema in a woman aged seventy-six. Since then the patient remained in the Birmingham Workhouse Infirmary *in statu quo* until Feb. 26th last, when my attention was drawn to her. I found that she was semi-comatose, could not speak or be made to respond in any way to questions put to her. The pulse was 36 per minute and very feeble; the respiration 16, stertorous; the temperature was 95°. On the 27th the patient was completely comatose. The pulse was still 36; the respiration 12 per minute. The temperature could not be taken with the ordinary clinical thermometers, which were not graduated below 95°, the mercury not rising to within an inch of the first mark on the glass. A thermometer used for taking the temperature of baths was separated from its iron frame, on which was the graduation, and the bulb was placed under the tongue for half an hour, the level of the mercury being marked on the stem with ink. The thermometer was again placed in its frame, and the registration was 76.5°. The next day the pulse was imperceptible at the wrist, the heart-beats being 20 per minute. The temperature, taken the same way as the day before, was 70°. During the day it was taken several times, and varied from 66° to 70°. The patient died the same night. The bath thermometer immersed in warm water, at the end of three minutes registered 99°, a clinical thermometer 98.5°.

so that we must not conclude that the patient's temperature was exactly as recorded. Still, allowing a degree or two, the temperature in this case must be one of the lowest ever recorded during life.—*Lancet*.

PATHOLOGY.

Richet: Autopsy in a Case of Rabies.—The victim was a Russian, æt. thirty-nine. The cranial bones were much congested, the vessels of the diploë being full of blood. The pericranium was equally congested, while small hemorrhages occupied the space between the periosteum and the skin. There was a slight effusion of blood in the arachnoid cavity over the right occipital lobe. The cerebral surface was markedly congested without any indications of meningitis.

Near the wound in the neck the superficial ganglia were hypertrophied, one of them to the size of an almond. The prefacial lymphatic was as large as a small cherry. The lungs were congested. The spleen was large (14 cent. long). The kidneys were slightly enlarged and congested throughout. The mucous coat of the stomach showed some ecchymoses.—*Rev. de Thérap.*, May 1, 1886.

Courcenet on Typhoid Osteitis.—In a thesis on the above subject the writer concludes:

That the most apparent and constant lesions observed are fungosities in the substance even of compact osseous tissue. This lesion produces severe pain with nocturnal exacerbation, later exostoses, and still later a purulent collection with fistulæ and sequestra. The affection follows an insidious and chronic course; can come on after three to eight weeks of convalescence, and shows a decided predilection for the tibiæ.

On the appearance of the above-described pains in a convalescent from typhoid, almost entire rest should be prescribed. Should a tumefaction appear, and no indication of tuberculosis or syphilis be present, surgical measures should be instituted.—*Rev. de Thérap.*, April 15, 1886.

Tweedy (H. C.) on Periostitis Following Enteric Fever.—Amid the long catalogue of medical and surgical affections which occur as sequels to the enteric fever, a place has in recent years been

claimed for a form of periosteal inflammation possessing certain definite characteristics, and although little or nothing is to be found in the ordinary text-books on the subject beyond a bald acknowledgment of the fact, yet too much attention has been drawn by writers of note to the occurrence of this disease in connection with typhoid fever to permit of its being so completely ignored.

J. S., æt. 33, a groom by occupation, was admitted to hospital on the 15th Dec., 1885, with well-marked symptoms of enteric fever. Smart diarrhoea, tenderness and gurgling, characteristic tongue, and a temperature of 103.5 deg. Jan. 10th, during normal convalescence, there was a rise in the evening temperature but unattended by any further constitutional disturbance. Fearing that there might be a recrudescence of the fever the patient was carefully watched, but though the temperature continued to rise there was no other symptom of relapse. The lungs were also carefully examined, but no mischief could be detected there. He now himself drew attention to a tender spot, about the size of a crown piece, just below the right sternoclavicular articulation. There was not, however, any redness or tumefaction to be found at the time. On the evening of the 13th January the temperature had risen to 103 deg., and continued high for ten days. There was by this time a well-marked oval swelling plainly discernible underneath the sternal attachment of the great pectoral muscle and extending from the second to the fourth costal cartilage. It was extremely painful, and the pain was much augmented when the fibres of the muscle were put upon the stretch. The tumor was elastic to the touch, and some fluctuation could be felt, specially in the transverse direction. There was no redness or discoloration of the skin, and I may here state that there was no history of syphilitic taint. The only treatment was constant poulticing, and the continuance of the ordinary iron and quinine mixture of the hospital, which he had previously been taking for some days. The temperature began gradually to fall on the 20th, and was perfectly normal on the 28th, continuing so from that out. The tumor also gradually subsided, became less painful, and finally disappeared altogether before the man left hospital.

Sir James Paget, in an interesting paper in

the "St. Bartholomew's Hospital Reports," (vol. xii., 1886, p. 1), gives, as far as I can learn, the first detailed account of this affection. He states that "it has its most frequent seat in the tibiæ, but occurs also on the femur, the ulna, and the parietal bone—that it really occurs on more than one bone in the same person. That it makes its appearance during convalescence, and is sometimes followed by necrosis, although never by the delirium, fever, or other severe symptoms attendant on acute necrosis." Referring to periostitis of the ribs, he adds "that he has never seen it associated with necrosis; that it invariably commences, as in the case now detailed, in a well-defined round or oval swelling on one or more ribs, and always on the front of the chest. It usually suppurates, forming sinuses through which thin and pale pus continues to flow for many months, although sometimes it subsides without any suppuration or more change than a slight thickening of the periosteum."

While, however, giving to Sir James Paget the credit which is due to him of being the first to describe this affection with any minuteness, it is but fair to mention that ten years previously, in the proceedings of the Surgical Society of Ireland (April 6, 1866, *vide Medical Press and Circular*, p. 427, vol. i., 1866), we find that "Dr. Grimshaw exhibited a portion of the upper jaw-bone of the right side which had exfoliated immediately after an attack of fever." It is not stated whether the fever in question was enteric or not, but Dr. Grimshaw informed me that the case had been described as one of gastric fever.

Dr. Affleck (*British Medical Journal*, May 9, 1885) cites three instances of this affection which came under his observation in the typhoid wards of the Edinburgh Royal Infirmary. These three cases of periostitis occurred in a total of 117 cases of typhoid which were under treatment in 1884, and differed from the cases recorded by Sir James Paget in that two of them occurred at the height of the fever, and the third when convalescence had barely begun.

The two first cases were in young men æt. 21, one of whom was admitted in the third week of the fever, with periostitis commencing on the right tibia. The other, who was admitted at the commencement of the fever, showed symptoms of marked periostitis in the right humerus in the third

week, and this was followed by a similar condition of the right tibia. The third case was that of a girl, æt. 9, who was admitted with a very severe attack of typhoid fever, and was attacked in the fifth week with periostitis of the right humerus. Additional cases corroborative of the above have been published by M. Mercier, *Revue Mens.*, Jan. 3, 1879, Dr. Hayward, of Liverpool, *British Medical Journal*, January, 1885, Dr. Jackson, of Manchester, *British Medical Journal*, Feb. 28, 1885, Dr. King, of Chester, *British Medical Journal*, May 9, 1885, and others, including Professor Strümpel, of Leipzig, and prove beyond question that periostitis does occur associated with enteric fever, whether as a mere coincidence or, as the weight of evidence seems fairly enough to demonstrate, as a true sequela of the disease.

Assuming the latter belief to be correct, how may the occurrence of periostitis under such circumstances be accounted for? Many and various have been the theories propounded.

In speaking of periostitis of the ribs, Sir James Paget says: "It so nearly resembles ordinary scrofulous periostitis of the ribs that I have sometimes thought it should be regarded, too, as only an evidence of scrofula educed by the feebleness of nutrition consequent on the fever. Yet I have never seen it associated with the signs of scrofula, and it has occurred after typhoid in some of so robust and apparently unblemished constitution that it would seem absurd to impute scrofula to them." He also throws out the suggestion that each fever may have "its own proper sequels," and is in this sense, though perhaps in less degree, as specific as in its fever period, and he adds further that he has not seen periostitis occurring after any other than typhoid fever, or a fever which he supposes to be closely related to it. In an article published some time ago in *Le Progrès Médical*, Routier divides such cases into those where only the external layer of periosteum is affected, those that are only subperiosteal, and those where the bone is also affected. He believes the local inflammation is always the result of *injury*, a blow, or a violent muscular contraction, these causes being sufficient to produce the condition when the body is in the enfeebled state after an attack of enteric fever. Dr. Haywood suggests a septicæmic origin in some cases, just as some of the instances of parotitis,

marasmus, and phthisis, after enteric fever are supposed to arise; and he mentions in connection with this that in one of his cases periostitis appeared about several of the long bones; suppuration occurred with external discharge, but after new attacks of periostitis had ceased to occur, and the old sinuses had healed (which they did very rapidly), the patient sank under acute phthisis, of which, previously to the enteric attack, there had been no evidence.

Dr. Affleck offers the rational explanation that it is probable that the affection depends upon the lowered nutrition of the osseous tissues as the result of the severe or prolonged attack of enteric fever, most of the cases in which it has been noticed appearing to be of this character. In this fever preëminently the nutritive changes are manifold and profound, and depend partly upon the pyrexia, but especially upon the great weakening of the assimilative function connected with the morbid alterations in the mucous membrane of the intestines, which may make itself felt even after all febrile action has passed away. To sum up briefly what is known of this comparatively rare affection, we learn: 1st. That it occurs most commonly during the stage of convalescence, although cases are recorded in which it appeared as an actual complication of enteric fever. 2d. That it attacks most frequently the tibia and the ribs, but that it has been observed on the femur, the humerus, the ulna, and the parietal bone, and that it rarely occurs on more than one bone at a time. 3d. That the cause of the disease is usually chronic, suppuration generally taking place after a time. That sometimes necrosis follows periostitis of the long bone, although this termination has not been noticed in cases of periostitis of the ribs, while occasionally, as in the instance cited, the case terminates in a spontaneous cure.—*Med. Press*, May 5, 1886.

Formad (H. F.) on Intra-Cranial Hemorrhage.—Record and classification of 143 consecutive fatal cases observed in medico-legal practice and in private autopsies in the city of Philadelphia.

After an analysis of 143 cases of intra-cranial hemorrhage, the author concludes as follows:

1. Hemorrhages exclusively above the pia-mater and above the dura-mater, *i. e.*, on the outside of the brain, are always due to *traumatism* or to *sunstroke*, provided a cere-

bral source for hemorrhage is excluded and the cerebral vessel and membranes were not diseased.

2. Hemorrhage in the floor of the fourth ventricle is always traumatic, provided there are no blood clots in the lateral ventricles or any other part of the cerebral substances.

3. Hemorrhage exclusively below the pia-mater, or in any part of the brain substance, or in the ventricles (except the fourth), is always idiopathic, *i. e.*, is due to disease.

4. There must be a diseased condition of the cerebral vessels or substance, in order to ascribe a hemorrhage to a disease. There must be traumatism (a fall or some form of violence) in order to account for a hemorrhage in a normal brain or membrane.

5. The blood clot, in concussion of the brain, is not found at the point of application of violence, but always somewhere about the opposite side of the brain, and always within the arachnoid, *i. e.*, between pia- and dura-mater.

6. The blood clot, in fracture of skull, is always found at the point of application of violence, immediately below and always between the dura-mater and the fractured part of the skull itself.

7. A blood clot formed within the cranial vault is more favorable to the patient, if due to fractured skull, than if due to mere concussion.

8. Only clotted blood and infiltration of blood corpuscles into tissues indicate an ante-mortem hemorrhage; liquid blood is due to post-mortem oozing, and only stains, but does not infiltrate tissues.

9. Severe bruises and cuts of the scalp may be seen in idiopathic apoplexy, where a sudden cerebral hemorrhage causes a person to fall.

10. In some cases it is impossible to decide, by medical examination alone, as to whether a head injury and the resulting hemorrhage is due to a fall or to violence.

11. External marks of violence may be invisible to the unaided eye in some cases of injury to the head or other parts, but are easily detected and distinguished from post-mortem spots by means of the microscope (see above).

12. The bulk of all intra-cranial hemorrhage stands usually in inverse proportion to the external scalp hemorrhage.—*Cincinnati Lancet-Clinic*, June 5, 1886.

Ernst (H. C.) on the Bacteria of Surgical Diseases.—After an extended description of the various bacteria met with in wounds, chronic abscesses, erysipelas, and other surgical affections, and an account of numerous experiments on animals, with an exhibition of specimens in culture mediums and under the microscope, the author presented the following conclusions :

1. The experiments conducted over so long a time with the successful inoculation at the end of that time, indicate very plainly the retention of pathogenic powers of these organs indefinitely.

2. Their permanence of form is also well established.

3. In order to obtain either a modification of their pathognomonic forms or of their morphological properties—if this is possible at all,—some different methods of investigation must be used than those which have hitherto been employed.

4. The probabilities indicate that work in this direction is not likely to be successful.

5. So far as the experiments go, they tend to show that no form of the suppurative process in man is unattended by bacteria, and that the inoculation in the lower animals of pure cultures of these bacteria is followed by more or less acute and extensive sup-puration.

6. The above conclusion is supported by the evidence of all workers in this field of research.

7. That a number of different clinical phenomena may be produced by the same organism, all of these phenomena, however, coming under the general head of the inflammatory and suppurative processes.

8. That the difference in the results produced by the same micro-organism in different individuals depends upon influences outside of the bacteria themselves.

9. That these differences are the result of differences in the amount of the infectious material received into the system, and of the locality or lesions by which it gains access, and also by variations in the individual condition—the personal equation being a very large factor in making up the sum of any results in bacteriological work.—*Jour. Am. Med. Ass'n*, May 8, 1886.

Jeffreys on a Communication Between Stomach and Transverse Colon.—The specimen was from a man, aged fifty-four, a retired publican, and a hard liver. Pain over, and enlargement of, the liver were first noticed in May, 1884.

Later, there had been several attacks of profuse offensive expectoration, and they lasted a considerable period. Emaciation steadily increased. On February 16th last, he had a severe syncopal attack, and shortly afterwards stercoraceous vomiting set in ; this was preceded by severe, diffused, abdominal pain. He suffered a great deal from constipation, and enemata were used. On February 27th, he passed a large piece of necrosed tissue, accompanied by hemorrhage. He died on March 2d from exhaustion. At the necropsy, a large cavity was found containing pus, and extending from the lower part of the transverse colon to the under side of the diaphragm ; the spleen formed the outer, and the posterior wall of the stomach the inner, boundary. The stomach, through an opening in its posterior wall, communicated with this cavity, as did also the posterior part of the transverse colon ; there was, also, an opening (from the abscess-cavity) through the diaphragm, and at this point, the left lung was adherent.—*Br. Med. Jour.*, May 8, 1886.

Oliver (T.) on a Source of Urea too little Recognized.—I believe the liver to be the chief organ concerned in the formation of urea, and that, while urea may be formed within it out of leucin and tyrosin—the products of the pancreatic digestion of proteids,—I am more than convinced that a great part of it is formed out of the red blood-corpuscles, the coloring matter of which goes to form bilirubin, and afterwards urobilin, and the greater part of the rest of the corpuscles to form urea.—*Br. Med. Jour.*, May 8, 1886.

Park (R.) on Lipoma Testis, or a Large Accumulation of Fat in the Tunica Vaginalis.—Lipomata of the spermatic cord are rare enough to always attract attention, but lipomata of the testicle are of such exceeding rarity that believing that I have had a case which deserves this designation, I desire to put it on record.

J. P., aged forty, was first seen in September 1885. For eighteen months the patient had noticed a slow but continuous enlargement of the right testicle. This was almost painless, but caused inconvenience by its weight. At this time the tumor had reached the size of a cocoa-nut.

Examination showed the scrotum to be filled with a large mass, the testicle being crowded into a small space at its upper

part. This mass was solid, yet soft and not tender. Obscure fluctuation was noticed, but no fluid was obtained upon explorative puncture. The patient's general appearance excluded all idea of malignancy. The scrotal integument moved with perfect freedom over the tumor.

On October 4th, the patient was operated on. A free incision through the tunica vaginalis revealed a mass of densely packed fat which was slightly adherent, but was turned out without difficulty. On separating the lobular masses by the fingers, the right testicle was found not merely imbedded in its upper part, but incorporated by apparently intimate tissue connection. It was supplied with blood both from the testis and from the cord. The cord seemed to pass for a distance of two inches through the mass before reaching the testicle. No evidence of past or present hernia could be found, the ring and canal being no larger than on the opposite side. Finding the fibrous trabeculae and blood-vessels radiating from the testicle to the fatty mass so numerous and distinct, it was decided to remove the whole *en masse*, which was done. The patient recovered without incident. After removal the mass weighed three pounds. It was not possible to decide the exact origin of the fatty growth, whether it had started from the cord or from the testicles.

The literature of this subject is very meagre, the author being able to find but three similar cases on record. Kimball¹ and Jobert² report authentic cases. Deguise³ also reports a case in which the tumor was as large as an adult head, and had been growing for twelve years.

Numerous authors state that lipoma of the cord may extend downward and spread over the testicle, and it is possible that this case may have begun in this way, but there was nothing to indicate such an origin.—*Boston Med. and Surg. Jour.*, May 13, 1886.

Wood (J. W.) on Absence of One Kidney and Carcinoma of the Other in a Child Three Months Old.—The writer was called to see a little girl three months old, suffering from diarrhoea. He prescribed paregoric and castor oil; the next day the child was much better, and he

did not see her again for ten days. At that time he was again called and told that the little patient had not passed water for two days. The child was evidently in pain, alternately crying and dozing; the features were pinched, the pulse very rapid, but the temperature normal. The abdomen was greatly distended; the superficial veins were prominent and somewhat varicose. An attempt at catheterization was made but was unsuccessful, owing to the fact that the meatus urinarius was much higher up in the vagina than normal. Hot applications over the abdomen were ordered, but no urine was passed. The child failed gradually and died three days later, having had complete suppression of urine for five days. The autopsy was made twenty-four hours later by the writer and Dr. John Wilson. The abdominal swelling had subsided. Upon opening the abdomen about a gill of serum was found. The spleen was normal. The left kidney was absent. On the right side was found a large firm mass, binding down the intestines, which upon removal was seen to be an enlarged and cancerous kidney. Its length was five inches, its other diameters three inches. The ureter was enormously dilated, and was seven inches in length. The bladder was hypertrophied, contracted, and empty. Dr. Wood says that he has been able to find records of only fifty cases of single kidney, but in view of the fact that operations for the removal of a diseased kidney are becoming more frequent, he would advise the catheterization of the ureters in every instance as a preliminary measure.—*N. Y. Med. Record*, May 29, 1886.

Stickler (J. W.) on Hatters' Consumption.—The author's conclusions are:

1. That pulmonary phthisis is the most common and fatal disease among the hatters.

2. That the greatest number of deaths occur among the "finishers" (82.3 per cent. of the cases reported in this essay, whose special line of work is designated).

3. That this particular type of phthisis is due to a mechanical irritation of the lungs by the fur and dust which pervade the air of the "finishing" and "pouncing" rooms. Dr. Stephen Wickes, of Orange, recently told me that, in a certain establishment in New York City, in which ostrich feathers are scraped with an ivory knife, there had been *seven* deaths from

¹ *Boston Medical and Surgical Journal*.

² *Gaz. Med. de Paris*, 1850.

³ *Ann. de la Soc. de Chir.*, ix.

consumption during the last three years. It is supposed that the disease was developed and carried to a fatal termination by the inhalation of the fine scrapings. This statement strengthens the last conclusion.

4. That the inhalation of the fine fur hastens the progress of inherited or acquired pulmonary consumption.

5. That removal of the exciting cause is the only rational means of preventing or interrupting the disease.

6. That the mortality among the "sizers" might be reduced if the hot vapor was promptly removed by means of a suitable apparatus, and if the operators would wear during the colder months *woollen* underclothing, thus protecting their bodies against sudden and violent changes of temperature.

7. That the greatest mortality is reached between the age of twenty and thirty years.—*N. Y. Med. Jour.*, May 29, 1886.

SURGERY.

Boeckel (Eug.) on Resection of Bone for Malignant Disease.—The surgeons first case was a primary carcinoma, of the upper part of the humerus, which had broken on very trivial injury. He resected the upper two-thirds of the bone. The patient, of course, did not have much use of the arm, but there was little or no deformity, and the operation itself was less severe than disarticulation. The second case was one of osteoid sarcoma of the humerus with fracture; twelve centimetres of bone were resected, and apparent recovery followed. Six months later the growth recurred in the scapula, and in two months the entire upper extremity was removed. Eighteen days later the right breast was removed for a rapidly growing tumor. A year later the woman died of some lung trouble, probably sarcoma. In a third case, the arm was disarticulated for a myeloid sarcoma of the humerus. Four months later he resected the glenoid cavity, acromion, and outer extremity of the clavicle. Recovery ensued.—*Gaz. Med. de Strasbourg*, May 1, 1886.

Staples (Geo. A.) on Some Modifications to the Ordinary Methods of Treating Transverse Fractures of the Patella.—The treatment of transverse fractures of the patella should not be ad-

dressed to approximation of the fragments alone—this is but one end among others to be attained. A simple apparatus, such as the Hamilton dressing, is preferably to be employed, since it performs the same service that the suture does without the dangers. It is always better to relieve the articular effusion, when attempting to reduce the diastasis, by vesication or aspiration.

Functional impotence after these fractures is due in general to premature atrophy¹ of the quadriceps. Atrophy is constant, but varies in degree. When it is marked, it usually succeeds pronounced arthritis. This atrophy should be combated by electricity from the beginning.—*Chicago Med. Jour. and Exam.*, May, 1886.

Meisenbach (A. H.) on Knee-Hemarthrosis.—Hemorrhage into the knee-joint is of two kinds, viz.: the complicated form, where it is caused by, and associated with the graver injuries of the joint, such as communicating fractures through condyles of the femur, fractures of the head of the tibia, and dislocations of the joint; and, secondly, the uncomplicated or typical form, or that which is produced by strains, blows, and falls, and where there is no grave injury to the component structures of the joint. It is this form of hemorrhage that forms the subject of this paper.

Surgical text-books do not mention this form of hemorrhage into the knee-joint as an uncomplicated condition, referring to it only as a complication of fractures and dislocations of this joint.

That slight injuries to the knee-joint, such as strains, blows, and falls, should produce rapid effusion of blood into the joint, can be readily understood when we remember the vascularity of surrounding tissues of the joint, and especially the delicate network of vessels which ramify in the synovial membrane, and its reduplications, known as tufts and fringes. It is to a rupture of vessels in these tufts and fringes that the hemorrhage is due.

An interesting point to note is: How long does blood within the cavity of the joint remain in a fluid condition? This is pretty hard to determine, but that it remains fluid for an indefinite time, and does

¹ At the first French Surgical Congress (Paris, April, 1885), M. Richelot, speaking from a further experience, reaffirmed his views as to the importance of the quadriceps muscles in fractures of the patella.

not absorb readily, nor coagulate, is known. One case was, after three days, aspirated, and another, three weeks after the reception of the injury, and the blood in both cases was in an unaltered and fluid condition. My experience is in accordance with that of Mr. Fagan, of Belfast, who, in an able paper read before the British Medical Association, and published in the *British Medical Journal* September 22, 1883, and who, to my knowledge, was the first one to call attention to hemorrhage in the knee-joint as an independent affection, reports that in his cases he has found the blood to retain its fluidity four to fourteen days, being the time patient was aspirated after injury.

The remaining of hemorrhage in the knee-joint for an indefinite time without removal, and then undergoing a process of very slow and imperfect absorption, is, in my estimation, one of the causes of the production of movable bodies in the knee-joint, properly known as joint mice.

The only affections that this would be liable to be confounded with are synovitis, acute or chronic, and hydrops articuli. If we keep the symptoms of these affections before the mind, we are not very liable, however, to mistake one for the other. The chief landmarks for our guidance to a correct diagnosis are : 1. Time of injury and rapid swelling after injury. 2. Very little pain or none on movement of joint. 3. Entire absence of feverishness of parts or general pyrexia.

Within a very short time after receiving a slight injury to knee, the knee swells rapidly, and effusion usually completely fills the synovial sac, and produces a bulging appearance under quadriceps extensor muscle, both externally and internally, for we know that the synovial sac extends some distance under the extensor tendon and, therefore, this appearance. On palpation, we have the feeling of elasticity under our fingers, and the patella is freely movable, *i. e.*, floating.

The manipulations of the joints do not cause pain—very little at least,—and the joint can be flexed (as far as effusion will allow) and extended with the same immunity from pain. There is entire absence of fever. Now, in acute synovitis, the swelling of the knee takes place slowly. The knee cannot be extended or flexed without excruciating pain, nor can it be manipulated without producing exceed-

ingly great pain to patient, and there is always associated with the above symptoms, fever. In chronic synovitis, we have a history of a previous acute stage ; in hydrops articuli, the history of a diathesis.

It does not matter whether it be a case of complicated hemarthrosis or an uncomplicated or typical one, the plan of treatment, as far as hemorrhage is concerned, is the same, and that is to aspirate as soon as possible. In a case of complicated hemarthrosis, the presence of blood in the joint is a drawback often to a full appreciation of the extent and character of the injury, and by aspirating leaves a freer field for manipulation, relieving nature also of a tedious job, the absorption of the effused blood. Not this alone ; the presence of the effused blood may be a drawback to perfect results in healing of a fracture, especially in a fracture of the patella.

In the typical form, aspiration is the proper plan of treatment ; by aspirating we accomplish in a few moments that which it would take a long time to do by other means or if left to nature, and then possibly with results unsatisfactory. I do not know how long a case would take by methods of compression and bandaging, having never treated one in that way alone, but I do know that in cases of synovitis this method of getting rid of an effusion is tedious, and a serous effusion every one knows undergoes very rapid absorption, comparatively speaking.

My method of aspirating and treating a case of hemarthrosis is as follows :

I carefully immerse the needle I select in pure carbolic acid, or in glycerine one part and carbolic acid one part, taking care to have the acid thoroughly permeate the bore of the needle, and afterwards rinse with pure water or weak carbolized water. The site I select for aspiration is usually the external side of the bulging synovial sac under the quadriceps extensor. Carefully cleansing same with carbolized water, and then pressing on opposite side of swelling so as to push the site to be aspirated as far out as possible, by doing this you can introduce needle deeper and do not strike cartilage of the joint as easily. Touching cartilages with my needle-point I try to avoid as much as possible. I can usually empty joint entirely, so that after aspiration patient is usually able to flex the leg completely.

After aspirating I either place the leg on

posterior splint, applying compress of cotton anteriorly and bandage, or simply a compress of cotton posteriorly and anteriorly, and bandage. I usually also order moist applications and enjoin complete rest in bed with leg elevated. Although the latter instructions have not been followed at times by some of my patients for as long a time as I had said, I have never seen any bad consequences follow. Sometimes after three to four days the joint may partially refill, when the effusion is again withdrawn and the leg rebanded, which will in most cases suffice. I have never had to aspirate more than twice to completely cure a case of this kind.

The prognosis is good. The average time is fourteen days to three weeks or complete recovery.—*St. Louis Cour. Med.*, May, 1886.

Lefevre on Pistol-Shot Wound of the Chest, the Ball Emerging through the Larynx.—The ball, after having traversed the chest wall and pleura in the region of the left axilla between the fourth and fifth rib, penetrated the external face of the upper lobe of the left lung, traversed its substance obliquely upwards and inwards, and emerged from its apex. The ball went behind the clavicle, across the upper pleural cul-de-sac, and perforated the subclavian and internal jugular veins at their point of convergence. It then reached the posterior and external surface of the left lobe of the thyroid gland, which it traversed, and by an obliquely ascending course penetrated the larynx between the first tracheal ring and the cricoid cartilage. There was an abrasion of the mucous membrane of the larynx opposite the point of entrance of the ball. The missile probably escaped through the rima glottidis and was expectorated from the mouth with some clotted blood, as it was nowhere found on the autopsy which was performed four days after the injury.—*Gaz. des Hôp.*, May 6, 1886.

Duncan (G. W.) on a Tumor in the Perineum.—Twenty-eight years ago Mr. J. B., of Frankfort, Ky., sixty-three years of age, of good habits, and free from any constitutional or hereditary taint, discovered a small superficial tumor, about the size of an ordinary pea, at a point near the centre of the perineal space. It enlarged very slowly until it became a matter of great inconvenience to the patient when riding horseback or sitting in a chair. Two years ago it had reached such dimensions as to interfere with the acts of micturition

and defecation, but still he bore it without complaint, and did not seek the advice of a physician until six weeks since, when obstruction to the passage of water was complete.

At this time I saw the patient; the tumor was superficial and movable under the skin. It was about the size of a goose egg, and so hard as not to be penetrable with a hypodermic needle. It infringed on the urethra so as to resist the introduction of a catheter of any size. Aspiration of the bladder was required twice a day for three days before the patient would consent to the removal of the growth. The operation was performed by Dr. Douglass, assisted by Drs. Gardner, Millikin, and myself.

The tumor was inclosed in a fibrous sac, from which it was removed without much difficulty. It weighed eight ounces; its structure appears to be solid bone, and so hard as to resist the sharpest instrument.

After its removal we were still unable to introduce the catheter, and so continued aspirating the bladder in the supra-pubic region for six days, morning and evening, at the end of which time urine was discharged in sufficient quantity by the natural passage.

At this writing the patient is convalescent, and shows no untoward symptom as a result of the frequent introduction of the needle into the bladder.

I herewith send you the tumor for your inspection and criticism.

[On section this tumor shows considerable densely packed fibrous tissue, with large areas of cartilage elements, in which are to be found numerous points of ossification. It belongs to the variety of mixed enchondromata, and took its rise in the superficial perineal fascia. It is interesting from its unusual situation, slow growth, and great density.—*Ed. Am. Pract. and News.*]—*Am. Pract. and News*, May 29, 1886.

Grant (F. W.) on a Case of Total Excision of Tongue (for Epithelioma) through the Digastric Triangle, with Preliminary Laryngotomy.—The patient being anesthetized, laryngotomy was performed, and a tube placed in the larynx in the usual way, through which the inhalation of chloroform was continued during the rest of the operation. The tongue was then transfixed by strong whipcord at its tip, and after dividing the frænum some little distance, to enable the tongue to be brought well forward, the pharynx was thoroughly plugged with a

large carbolized sponge, to which whipcord was also attached. An incision was next made, commencing a little below the tip of the left ear, down the anterior border of the sterno-mastoid as low as the great cornua of the hyoid bone, then forwards to the body of the latter, and from this upwards along the anterior belly of the digastric. The flap of skin thus formed was reflected on to the cheek, and four indurated lymphatic glands carefully removed from before backwards. The superficial portion of the left submaxillary gland, from an unnatural consistence in its structure, was mistaken for a cancerous lymphatic gland, and was thus removed along with its deep portion. After ligature of the facial and lingual arteries—the latter just before passing under the hyoglossus muscle—the floor of the mouth was opened into, and the diseased mucosa at the same time removed. A loop of the ecraseur wire was introduced into the buccal cavity through the digastric wound, and made to encircle the tongue as far back as possible, and then adjusted to the ecraseur. The organ was by this gradually constricted, about five minutes being allowed to sever the tissue. As the pulse became irregular, I rather hastened the last two turns of the ecraseur, the result being that the stump bled freely for a short time. This was, however, soon controlled by plugging the mouth and the digastric opening with sponges, and did not again recur. After the mouth and pharynx were rinsed out with weak carbofic lotion, the pharyngeal plug was withdrawn, and the submental wound stitched, except for an inch or so about its middle, which was left open for drainage purposes.

After-Treatment.—For the first twenty-four hours I fed the patient with enemata of port wine, beef-tea, and cream. From the second to the end of the sixth day the nutriment was introduced into the stomach by means of a stomach syphon tube. After the seventh day the patient was allowed to swallow liquids and semisolids. The tube in the larynx was retained until the tenth day, when it was removed, and the wound allowed to granulate over. The digastric wound was twice daily syringed with a weak lotion of Condyl's fluid and chlorinated soda. The stump was twice daily dusted over with iodoform. By these means there was hardly any fetor of breath perceptible, and the temperature never rose above 90.6°

(evening of second day after operation).—*Edin. Med. Jour.*, May, 1886.

Senn (N.) on the Pancreas as Based upon Experiments and Clinical Researches.—The following conclusions were presented:

1. Restoration of the continuity of the pancreatic duct does not take place after complete section of the pancreas.
2. Complete extirpation of the pancreas is invariably followed by death, produced either by the traumatism or gangrene of the duodenum.
3. Partial excision of the pancreas for injury or disease is a feasible and justifiable surgical procedure.
4. Complete obstruction of the pancreatic duct, uncomplicated by pathological conditions of the parenchyma of the organ, never results in the formation of a cyst.
5. In simple obstruction of the pancreatic duct the pancreatic juice is removed by absorption.
6. Gradual atrophy of the pancreas from nutritive or degenerative changes of the secreting structures is not incompatible with health.
7. Physiological detachment of any portion of the pancreas is invariably followed by progressive degeneration of the glandular tissue.
8. Extravasation of pancreatic juice into the peritoneal cavity does not produce peritonitis.
9. Crushed or lacerated pancreatic tissue is removed by absorption, provided the site of operation remains aseptic.
10. Complete division of the pancreas by elastic constriction is never followed by restoration of uninterrupted anatomical continuities.
11. Limited detachment of the mesentery from the duodenum, as required in operations upon the pancreas, is not followed by gangrene of the bowel.
12. In all operations upon the head of the pancreas the physiological attachment of the peripheral portion of the gland should be maintained by preserving the integrity of the main pancreatic duct.
13. Partial excision of the splenic portion of the pancreas is indicated, in cases of circumscribed abscess and malignant tumors, in all cases where the pathological product can be removed completely without danger of compromising pancreatic digestion or of inflicting additional injury upon important adjacent organs.
14. Ligation of the pancreas, at the point or points of section, should precede extirpation, as a prophylactic measure against troublesome hemorrhage and the extravasation of pancreatic juice into the peritoneal cavity.
15. The formation of an external pancreatic

fistula by abdominal section is indicated in the treatment of cysts, abscess, gangrene, and hemorrhage of the pancreas due to local causes. 16. Abdominal section and lumbar drainage is indicated in cases of abscess or gangrene of the pancreas in which it is found impossible to establish an anterior abdominal fistula. 17. Thorough drainage is indicated in cases of abscess and gangrene of the pancreas, with diffuse burrowing of pus in the retro-peritoneal space. 18. Removal of an impacted pancreatic calculus in the duodenal extremity of the duct of Wirsung by taxis, or incision and extraction, should be practised in all cases where the common bile-duct is compressed or obstructed by the calculus, and death is threatened by cholæmia. 19. In such cases the principal source of danger, extravasation of bile into the peritoneal cavity, should be avoided by preliminary aspiration of the dilated bile-ducts, accurate closure of the visceral wound with fine silk sutures, and absolute physiological rest of the organs of digestion during the time required in the healing of the visceral wound.—*N. Y. Med. Record*, May 8, 1886.

OBSTETRICS AND DISEASES OF WOMEN.

Bigelow (H. R.). A Morning with August Martin.—Dr. Martin's operating room is of stone, well heated and well lighted. It is filled with carbolic spray an hour or two before the operation. The spray is kept in operation during the entire time. The abdomen of the patient is washed with soap and water, then with lemon juice, then with bichloride water; the pubes shaved, vagina irrigated, and bladder evacuated. The night before the operation, the patient takes a carbolized bath, and the bowels are evacuated. Dr. Martin sits on a low stool between the legs of the patient. The operating table, invented by Frau Horn, his matron, is low, of galvanized iron, with a centre section that can be dropped down without disturbing the woman, so that the bandages may be passed without difficulty. One assistant sits at the head, and takes charge of the anæsthetic; the other, Dr. Düvelius, sits on the left side of the patient. The arms, hands, and finger nails of operator and assistants are treated with soap and water, lemon juice, and bichloride water. All

three change their clothing and wear clean white linen suits. Every instrument, the needles, and ligatures are kept in antiseptic fluid, also the sponges, the smaller ones never being used twice. The abdomen is entered rapidly, the peritoneum nicked, and opened up, along the finger as a director, with scissors. The intestines are placed outside upon the skin, covered with a clean towel, and attended to by Dr. Düvelius. This leaves plenty of clear space within the cavity in which to work.

The elastic ligature is applied, the uterus amputated, and the stump treated as follows: The incision is in the form of an ellipse. The cervical canal is first stitched so that no septic influence can be conveyed through the vagina. Then the larger flaps of the large stump are brought together by a number of interrupted sutures (I saw Dr. Veit treat the stump in this way with continuous catgut suture), the ends being puckered up in the loop of the last ligature. Then the peritoneum is brought over all. In some instances, the tumor is divided in halves to a point just above the elastic ligature, this half enucleated, and one half the stump treated as described, then the other half.

In one case, I saw Dr. Martin remove an extra-peritoneal tumor, then cut into the uterus, enucleate two intra-mural myomata, stitch up the uterus, and close the abdominal wound.

I have never seen the least tendency to secondary hemorrhage. I have not heard of such an occurrence when the stump was so treated, and I do not deem such an accident possible.

Dr. Martin does not deem the escape of pus into the cavity during an operation as a complication of serious moment. He washes out the cavity thoroughly with warm water, and although I have seen many such instances, I am unaware of any untoward results. The wound is closed in the usual way.

Dr. Düvelius, the first assistant, is himself a brilliant operator, and a most intelligent man, so that Dr. Martin is most ably seconded. The statistics of Dr. Düvelius' operations are excellent.

The after-treatment is that which usually obtains, but the cases are all carefully watched, and all of the rooms are thoroughly clean, and, so far as possible, made aseptic.

Why there should be such a difference

between the results of these serious operations here in Berlin and the United States it is hard to say. The material here being infinitely larger, of course the experience of the operators is larger, and from this must come a proportionately greater facility, ease, and confidence in operating. In the large details of antiseptic practice, if this be our belief, or in the salient features of absolute cleanliness, if we lean to this phase of surgical procedure, our gynecologists are stringent; but I question much if they are equally as rigorous in the little things. I believe, too, that, as at present practised, the intra-peritoneal treatment of the stump offers advantages not possessed by the extra-peritoneal, and I do not now look upon it as a matter of any more significance to drop a properly prepared stump after a hysterectomy, than is the same practice after an ordinary ovariectomy. I believe, and, indeed, know, ovariectomy to be often a severe operation; but I have seen so many here with such universally good results—I have seen so many, nay, all of them done so rapidly and apparently so unconcernedly—that I have almost begun to regard it as a matter of course for the patients to recover. I have seen Dr. Martin operate under many trying circumstances, and under conditions that try men's nerves to the utmost; but he is never ruffled, and always cool and ready for any emergency. He is a rapid operator and exceedingly deft in his manipulations.—*Am. Jour. Obstet.*, May, 1886.

Mandillon on Eclampsia and Anuria.—The author believes:

1st. That puerperal eclampsia is nearly always a symptom and a consequence of a uræmic state due to a transitory lesion of the kidney.

2d. That the treatment should be that of uræmia seconded by anæsthetics and hypnotics.

3d. That, treated in this way, the disease ceases to be a formidable affection.—*Rev. de Thérap.*, May 1, 1886.

Brooks (W. T.) on a Case of Puerperal Convulsions, with Complications.—The case presented several points of interest: 1—The occurrence of puerperal convulsions, without the presence of albuminuria, in a neurotic patient, which continued for six days after delivery. 2—The supervention of right hemiplegia, which came on slowly after a very long convulsion, and in the course of a few days

gradually disappeared. This was unaccompanied by facial paralysis, but was followed by the appearance of a bed sore. The gradual onset of and recovery from hemiplegia points, I think, to the occurrence of a small hemorrhage in connection with the internal capsule of the opposite side. 3—The presence of aphasia, which, although accompanied by right hemiplegia, I believe to have been functional. This was indicated by the aphasia having preceded the hemiplegia by two or three days, and also by the fact that the recovery of speech was sudden and complete. 4—The pneumonia, which was an extensive apical one, was of a low form, the highest temperature being 101°.—*Lancet*, May 1, 1886.

Homans (J.) on a Case of Extra-Uterine Pregnancy of Seven Years' Duration, in Which the Bones of an Adult Fœtus Were Found during an Attempt at Ovariectomy.—The patient was a woman of Irish descent, medium height, dark complexion, weighing about one hundred and thirty pounds, and about thirty-five years old. She had always enjoyed the best of health till August, 1879. During the latter part of August, when about six weeks pregnant, she was taken sick with uterine hemorrhage and probably peritonitis. About a couple of months afterwards she was again taken sick with the same symptoms. During the following winter the attending physician told her that the fœtus was outside of the uterus in the abdomen (extra-uterine pregnancy).

About the eleventh or twelfth month of pregnancy, while flowing, she called on Dr. J. R. Chadwick, who told her he suspected abdominal pregnancy. Soon after this time—that is, in June or July, 1880, her flowing ceased and she gained strength and went to work to support herself and husband, and enjoyed fairly good health in spite of the enlargement of the abdomen. By March 8, 1886, the patient's condition had become so poor that it was decided to operate.

After emptying this sac, which was one of abdominal pregnancy, I passed in my hand, and at the bottom, found all the bones of an adult fœtus completely macerated and separated. These bones were removed, washed, and dried, and are in this bottle, which I will pass around. They are the complete set of the bones of a fœtus at the eighth or ninth month of pregnancy, and were completely macerated when I

took them out. Some of the smaller bones may have been lost in sponging out the sac, or in some other way, but they seem complete. The abdominal cavity was cleansed, a glass drainage-tube was put in above the foetal sac, and the wall of the sac and the skin of the abdominal incision were sewed together. The great shock of the operation and loss of blood in this patient, worn down by weeks or months of peritonitis and decomposition, had made the pulse very feeble. After removal to the bed, transfusion of warm salt and water into the median cephalic vein of the right arm was done, ten ounces being passed in. The patient was by no means bloodless, but I wished to see if transfusion would strengthen her. Later, in about three-quarters of an hour, Drs. F. B. Harrington and John Homans, Second, transfused thirty ounces into the left arm; but although the first transfusion brought back, or induced, or, at least, was followed by, a perceptible pulse of 140 to the minute, there was no real improvement, and the patient died about four hours after the operation began. No thorough autopsy was obtained. In preparing the wound for the undertaker, I found that I could not trace the walls of the rotten ovarian sac, and that the sac of pregnancy was underneath at the time of the operation. This sac rested on top of the uterus, which was adherent to it, and it seemed to have started rather on the left side of the pelvis. It was tough, and its walls were about one third of an inch thick. The uterus was elongated and enlarged. It was tightly fixed, as were apparently all the pelvic viscera. No ovaries, tubes, nor any out-lines, except those of the uterus, could be made out through the undissected tissues. *Bost. Med. and Surg. Jour.*, May 20, 1886.

Payne (J. F. T.) on a Remarkable Case of Congenital Absence of the Ostium Vaginæ, and Delivery by the Anus.—On April 24, 1885, late in the evening, Dr. George S. Sykes, of Galveston, was called to attend Mrs. H. T., who was in labor. She was thirty-five years old, and bore every sign of perfect physical development. The midwife said she had been in labor since the preceding mid-day. The bag of waters had been ruptured early in labor, and the patient was very much prostrated by her protracted but inefficient efforts to expel the foetus. Examination revealed entire absence of the

vaginal orifice, and the finger, passed along the perineum, sank into the distended anus, and encountered the foetal head just within the opening. The anus was dilated to about the diameter of three inches. Never having met with such a case, the attending physician sought the advice of the writer.

Examination confirmed the diagnosis. The foetal head was found within the rectum, arrested at the distended and resisting anus. A clammy skin, sighing respiration, rapid, feeble pulse, told the story of strength wasted by a fruitless labor. Uterine inertia; the anus, though considerably dilated, was insufficiently so to admit the passage of the head, and was rigid and unyielding. The indications were too clear to admit of a doubt as to the treatment. Chloroform was administered, a Simpson's obstetrical forceps applied with comparatively little difficulty, and by moderate effort the head was promptly delivered. The shoulders and trunk were brought into the world by a *vis a tergo*, exerted by squeezing and downward pressure on the uterus through the abdominal parietes. The placenta was speedily expelled by expression. There was no apparent laceration of the anal sphincters. There was no unusual hemorrhage at the time of the accouchement, nor was there subsequent oozing. Firm tonic contraction of the uterus quickly followed a dose of ergot. The anus regained its normal characteristics within a few hours.

Five months and sixteen days after her accouchement, Dr. Payne examined the case thoroughly, and found complete absence of the ostium vaginæ. All the parts within the vulva presented the characteristics of virginity—the clitoris, normally developed and situated; the vestibule and posterior commissure bore no signs of having been stretched, distorted, or lacerated by childbirth; the urethra was in its proper place; the nymphæ and labia majora were in every respect natural in their virgin symmetry of outline. Two fingers were readily introduced into the rectum and passed upward along the anterior rectal wall for a distance of about two inches, when it was clearly appreciable that the surface gradually sloped forward and upward, and merged into the anterior vaginal wall, which at this point was natural in its anatomical relations. From a half to an inch below the os uteri could be distinctly felt the free edge of a membranous cur-

BUSINESS NOTES.

"Lactopeptine."—Dr. Livezey writes: "While wintering in Florida, I met with my annual patient, a young lady of twenty-eight, from Chicago, who was sent hither three or four years ago in order to pass out into the "spirit land" comfortably, who now being troubled with poor appetite, a slight but distressing nausea, great debility, irregular menstruation, excessive cardiac action on the least exertion, etc., I ordered 1-oz. bottle of "Lactopeptine" of the N. Y. Pharmacal Association's manufacture, and she improved at once. Soon after, she met a lady friend, who told her she ought to take Lactopeptine, stating what wonders it had done her, who was troubled "just the same way" (of course). "Why, bless me," said my patient, "that is just what my doctor prescribed for me and I am doing nicely." By the time she finished the small vial, she declared she never felt better in her life, her appetite being regular, and every thing O.K.

N.B.—She has taken since Lactopeptine, Elixir of Calisaya, Iron, and Bismuth, with excellent results.—*The Medical Summary.*

"Horsford's Acid Phosphate."—Dr. H. P. Atherton Great Barrington, Mass., says: "I have been using and prescribing your "Acid Phosphate" for a number of years. The results have been so satisfactory as to justify me in giving it my unqualified endorsement. I have found it a refreshing and exhilarating beverage during summer months. In a case of reformed inebriety, I have observed its restorative effect in toning up the system and correcting the nervous derangement of the subject."

"Colden's Beef Tonic."—Opinion of Dr. W. C. Cavenagh, Memphis, Tenn.: For weak digestion, general debility, and want of appetite, I cheerfully recommend "Colden's Liquid Beef Tonic."

"Peacock's Bromides."—We find "Peacock's Bromides" to be one of the best remedies we have ever used in nervous headaches, and in cases where a nerve sedative is indicated it acts admirably.

DRS. ROBB & HALL.

Woodburn, Ky.

"Operating Chairs."—Send to M. Klein, Chicago, Ill., for catalogue of his well-known "Chairs" for physicians.

"Aletris Cordial."—I have tested "Aletris Cordial" (Rio) and find it to be an excellent Uterine Tonic.

F. A. THOMPSON, M.D.

Durell, Pa.

"Pinus Canadensis."—I am using "Kennedy's Pinus Canadensis" largely and with great success.

L. C. TULLE, M.D.

New York, N. Y.

"Gluten Flour."—

Messrs. Farwell & Rhines.

Dear Sirs: I am especially pleased with your "Gluten Flour." I consider it almost indispensable in the treatment of diabetes. It supplies a long-felt want, being palatable, nutritious, and nearly free from starch.

DR. D. MONROE.

Auburn, N. Y.

"Iron-Alum Mass."—For dyspepsia, ulceration of the mouth and throat, leucorrhœa, "The Seven Springs Iron Alum Mass" seems to act almost with specific effect.

E. O. GRIGGSBY, M.D.

De View, Ark.

"Lactated Food."—If there should be any of our readers still unacquainted with "Lactated Food," send to Wells, Richardson, & Co., Burlington, Vt., for sample. It will certainly benefit you in your practice.

"Syrup of Hypophosphites."—I do not hesitate to commend it to the profession as worthy of confidence.

PROF. HARVEY L. BIRD.

Baltimore, Md.

"Scott's Emulsion."—This preparation seems to be almost a specific for habitual constipation, as is shown by the very large number of flattering reports the manufacturers are receiving daily from physicians all over the United States, regarding it. See their advertisement on another page.

"Clinical Thermometers."—The "Thermometer" manufactured by John Barry of 62 Fulton Street, New York, is considered by physicians all over the United States as a most accurate and reliable little instrument.

"Surgical Bandages."—Attention is directed to the advertisement of Hastings & Garson, who have gained for themselves an enviable reputation as manufacturers of Bandages, Supporters, Pessaries, etc. Send for catalogue.

THE MEDICAL ANALECTIC

A
MONTHLY EPITOME OF PROGRESS IN ALL DIVISIONS OF
MEDICO-CHIRURGICAL PRACTICE

EDITED BY
R. W. AMIDON, M.D.

VOL. III., No. 7.

July, 1886.

WHOLE NO. 31.

LEADING ARTICLES.

Baré on Congenital Stenosis of the Descending Aorta.—This is rather a rare affection, only about ninety-two cases being recorded, verified in eighty-seven cases by autopsy.

The point of greatest constriction is generally a little below the emergence of the left subclavian. The constriction is generally single, but it may be double; in that case the portion of the aorta included between the two stenoses is nearly always dilated. The constriction is quick or gradual; in the first instance it imparts to the finger the feeling of a resisting ring, and the artery appears as if suddenly encircled by a ligature; in the second case the calibre of the artery progressively diminishes. In well-marked places the narrowing takes the form of a funnel, of which the small extremity, directed downwards, corresponds to the part most stenosed.

The narrowing is caused by a sclerotic thickening of the walls; by thick folds of the intima, or in some instances by a thick transverse septum perforated by an opening, central or marginal, of different form, which permits the passage of blood along the vessel. There is a sort of narrowing, which consists of two segments of the artery, terminating in infundibula, which are united by a fibrous cord which is pervious.

The dimensions of the narrowing are various. Some admit the insertion of the little finger, while in some only a straw or a bristle can be inserted. As a general rule, at the point of constriction the aortic wall is not changed, but in more than one third the cases atheromatous lesions are found, cartilaginous or even bony patches; exceptionally the walls have become thinned. In more than one half the cases the prox-

imal aortic segment is dilated, often into real aneurismal pouches. Quite often the distal segment is dilated too. The large vessels springing from the aortic arch generally participate in this dilatation.

Dilatation and hypertrophy of the left ventricle is generally present. The circulation of the head and upper extremities is unusually active, while that of the chest, abdomen, and lower extremities is much impaired, and carried on chiefly by collateral branches.

Congenital malformations are present in thirty-eight per cent. of the cases. The most common are: insufficient number of semilunar valves, communication between the cavities of the heart, harelip, cleft palate, hypospadias, etc. Males are the most frequent victims, and it has been found at all ages.

Some persons with this lesion have no symptoms; in others it is accidentally discovered by a physical examination, while others suffer from symptoms of chronic cardiopathy.

The physical signs are not pathognomonic. There are hypertrophy and dilatation of the left side of the heart, a vigorous impulse; a blowing murmur at the base, on a level with the first intercostal space, is transmitted along the vessels of the neck and along the descending aorta. These murmurs are more important when their point of greatest intensity is behind, at about the third or fourth dorsal vertebra.

Inspection of the chest reveals the presence of large, pulsating, and tortuous arteries. The pulse in the arteries of the head and arms is very good, while in the abdominal aorta and lower extremities it is very slight or wanting. When it can be felt, the crural pulse is retarded as compared with the radial.

The course of the affection depends on the state of the cardiac muscle. Some-

times the case ends abruptly by rupture of an aneurismal pouch or the wall of the heart itself.—*Rev. de Méd.*, June 10, 1886.

Jaccoud on Purulent Infection Following Pneumonia.—The first case was a man of fifty with right pneumonia. On the second day the temperature fell and resolution commenced, but in two days it was checked.

After eleven days of apyrexia the fever reappeared with an enlargement of the right knee, which was shown some hours before death to be due to pus. Death ensued on the thirty-sixth day after the initial pneumonic chill.

On autopsy the right lung, which was in a state of gray hepatization, was found to be the seat of many small abscesses. There were blood-stained vegetations on the anterior pillar of the mitral valve, and filamentous vegetations among the chordæ tendinæ of the tricuspid valve. The medullary substance of the kidneys contained numerous miliary abscesses. The right knee contained a considerable quantity of phlegmonous pus, as also did the right shoulder; and, without any communication with the joint, a purulent collection descended in the sheath of the brachialis anticus nearly to the elbow.

In the lung were found by Dr. Nettler the streptococcus and the staphylococcus pyogenes, and also the pneumococcus of Friedländer, while in the joints, kidneys, and valvular vegetations the pyogenic organisms were abundant. Inoculation of the pus in white mice and guinea-pigs produced similar suppurations containing identical micro-organisms.

The second case was a man of seventy with pneumonia of the right lung. More than a week after the subsidence of the fever a large abscess formed in the left thigh, and it was opened and healed. On the fiftieth day from the initial pneumonic chill the patient suddenly died.

On autopsy the upper lobe of the right lung was found in a state of gray hepatization and the seat of small abscesses. The left lung had many small collections of liquid pus beneath the pleura. In the tissue of the heart were three abscesses. Both kidneys contained miliary abscesses. Streptococci and staphylococci abounded in the lungs, heart, and kidneys. The pneumonic microbe was not found. A culture was made and rats inoculated, with the result of reproducing the disease.

These two cases are perfect types of pyohemia by microbe migration.—*La France Médicale*, June 4, 1886.

Harley (George) on Puncturing the Liver's Capsule: A Curative Procedure in Hepatic Disease.—While I can make no claim whatever to the priority of instrumentally exploring the living human liver, I yet deserve the honor of being considered the originator of the practice of employing a species of acupuncture, as a curative agent, in the treatment of that common and troublesome form of disease known as hepatic hypertrophic induration.

1. As far as we at present know, a system of acupuncture by *solid* needles of two or three inches in length, made of gold or silver, has been practised by the Chinese and Japanese as a method of curing a variety of distinctly different kinds of painful affections from time immemorial.

2. Although we have no proof, at least as far as I am aware, that either of these peoples ever employed acupuncture in the cure of hepatic affections, it is not improbable that they did so, seeing that they were even bold enough to stick their gold and silver needles into the lungs and hearts of their patients. This they did from their laboring under the belief that almost all chronic painful affections are due to the presence of pent-up wind in the parts affected. The needles are apparently used by them with the object of making holes in the tissues, in order to allow the wind to escape.

3. The system of acupuncture as a curative agent seems to have been totally unknown in Europe until the year 1679, when a Dutch physician, in government employ, on his return from the East described its employment. It was apparently not, however, until 1810, that is to say, seventy-five years ago, that a French doctor of the name of Berlioz adopted it as a means of curing chronic rheumatism. Since which time, in all parts of Europe, solid needles have frequently been thrust into the muscles, more particularly those of the lumbar region, with the view of curing lumbago. This I have frequently myself done, both in cases of lumbago and torticollis.

4. Within the last fifty years puncturing the sheath of the sciatic nerve—likewise with solid needles—in cases of severe sciatica came into vogue.

5. The needles employed by European surgeons are neither made of gold nor silver, but simply of steel, and set in handles

(like those of the Chinese and Japanese), in order that they may be the more easily inserted into the tissues by the slightly rotatory movement generally adopted.

6. Within the last couple of decades European surgeons began to puncture, either with solid needles or small trocars and canulæ, the tense fibrous tunica albuginea of the testicle, in cases of painfully acute orchitis.

7. While lastly, acting on the same principle, I introduced, or rather, I should say, am attempting to introduce the practice of puncturing the equally tense and distended capsule of Glisson in cases of hepatic hypertrophic induration. Instead, however, of using solid needles, as in ordinary acupuncture, I employ a fine trocar and canula, from my object being not only to relieve the tension of the distended and unyielding fibrous capsule surrounding the liver, but to allow to escape any fluid that may be pent up within it.

Any one at all versed in the history and practice of acupuncture, I think, therefore, must at once see that this puncturing the liver's capsule is an entirely new system of treating hepatic hypertrophic indurations. I will therefore now proceed to show that it is quite another thing from exploring the liver with a trocar and canula, from the simple fact that an exploration is made with diagnostic and not with therapeutical intent. Surgeons, and more particularly Indian surgeons, have long been in the habit of introducing exploring trocars into the livers of their patients suspected to be laboring under abscess. Moreover, although it is somewhat beside the question, I think I may add that I have little doubt that the employment of small instruments as preliminary diagnostic agents, originated in the fact that our Indian *confères* often found themselves penetrating livers with large evacuating trocars, in which not a vestige of suppuration existed. And this happening rather more frequently than they liked, they began to take the precaution of making a preliminary exploration with an instrument of smaller calibre, so as to entail as little suffering and inconvenience on their patients as possible—in the event of their having committed an error of diagnosis. It is thus seen, then, that hepatic exploration is an entirely different thing, both as regards nature and object, from my newly proposed curative procedure of hepatic puncture.

Though not a surgeon, or making any pretence to be one, I think I may with something like justice opine that ten years' practice as an experimental physiologist taught me many things that no surgeon would be likely to learn in the field of human practice. And one of these was that a certain amount of blood can be directly withdrawn from the livers of dogs, not only without danger to life, but without any apparent inconvenience to the animal. And further, that on opening the abdomens of the animals within a few days afterwards it is scarcely possible to detect the seat of the hepatic punctures. And that even when they are detected, there is no inflammation around them. Nothing but a small red spot is in general visible on the capsule of the liver. This observation I first made at the time I was working at the artificial production of diabetes in animals by the injection of stimulants into the portal vein. And although during years afterwards I had often thought of the possibility of performing with advantage hepatic phlebotomy on the human subject, I never had the courage to propose it, until I saw how many poor patients succumbed to acute hepatitis, where it appeared to me the direct withdrawal of blood from the liver might possibly have arrested the progress of the case, and saved the life of the sufferer. Accordingly I gradually began, in suitable cases, to propose the performance of the operation. But time after time was I baffled. Sometimes by the patient alone, sometimes by both patient and doctor, so soon as they learned that the operation was a new and untried one, and the only experience I had of it was on dogs.

Along with Dr. Dunbar Walker I saw a married lady, æt. 38, who might be said to be of intemperate habits. A month before our consultation she was attacked with hepatitis, and when Dr. Walker was first called in he "found the liver [I extract this from his history of the case] already greatly enlarged and indurated, the legs œdematous, and the abdomen contained a large quantity of fluid. The abdomen was tapped and aperients given. As these remedies were persevered in for a fortnight, without a diminution in the size of the liver, or any permanent improvement in the general symptoms taking place, Dr. George Harley was called in and recommended bleeding the liver by a trocar."

Now I shall myself take up the thread of the narrative. Hope of saving her by the ordinary routine of orthodox practice I had none, consequently I urged the propriety of giving the patient the chance of a forlorn hope by hepatic phlebotomy. It was declined by both the patient and her husband; on reflection, however, after the utter hopelessness of the case had been forcibly put before them by Dr. Walker, who strongly supported me, their mutual assent to the operation was obtained, and on the fourth of October, 1883, was performed for the first time, as far as I am aware, the operation of hepatic phlebotomy.

Dr. Walker having rendered the patient insensible, with the A. C. E. mixture, I pierced the liver from right to left, with an eight-inch long trocar, of the diameter of a No. 3 catheter. The normal liver being at least ten inches broad in an adult woman, and it being greatly enlarged in this case, I knew I was perfectly safe, and so ran the trocar up to its very hilt, in the hope that during its penetration it would wound some vessel of sufficient calibre to yield a free stream of blood. All now had to be left to the chapter of accidents as regards the risk of the point of the instrument lodging in the interior of a blood-vessel and allowing the entrance of air.

It being impossible to overlook this important risk, I had previously gone carefully over hepatic literature in order to discover if there was any example on record where such an untoward accident had occurred, either during the exploration of the liver or in the tapping of abscesses or hydatids of the organ with trocars. I found none. But I came on a case reported in the eleventh volume of the *Clinical Society's Transactions*, p. 230, under the title "A Case of Sudden Death Following the Operation of Tapping a Hydatid Cyst of the Liver," and I believe erroneously given as an example of death from the entrance of hydatid fluid into the trunk of the portal vein. My opinion is, that the death of the patient was due to the entrance of air into the hepatic vein. For even had air entered the portal vein, I cannot see how it could possibly have arrived at the patient's heart, after traversing the minute capillaries of the glandular structure of the liver, which it would be forced to do, in the form of sufficiently large air bubbles as would suffice to prove fatal to life. In the case of

the hepatic vein, on the other hand, it would be quite different, as between its trunk and the heart there is no intervening network of fine capillaries to subdivide the air globules. However, be that as it may, there was, I knew, no necessity of my running this risk. All that was necessary in order to avoid it being to take the precaution of guiding the point of the trocar in such a direction as would preclude the possibility of its encountering the large blood-vessels which are situated in the neighborhood of the transverse fissure. Consequently, all I had to do to prevent the entrance of air was to direct the point of the instrument while penetrating the organ in a line between the centre and the upper convex border of the liver, in which position there are exceedingly few, if any, large vessels at all. The danger the patient ran in thus performing the operation I consequently considered to be but trifling, when compared to the advantages I was sanguine enough to anticipate would follow upon the free extraction of blood from her inflamed liver. Looking forward, then, with confidence to the result, no sooner had I pushed the instrument home to its hilt, than I began slowly and deliberately, with a rotatory movement, to withdraw it, in the hope that sufficient blood would ooze from the wounded vessels into the channel left by the receding trocar to reward my efforts. Nor was I doomed in this hope to be disappointed, for scarcely had an inch of the trocar been withdrawn when blood flowed from its orifice abundantly. So all that had now to be done was simply to let it flow. And let it flow I did, until twenty ounces had come away. What was the result? Did the patient suffer much from the operation? or did she die? Neither. Here is what Dr. Walker says in his report of the case:

"From that day the liver became gradually reduced in size. With the aid of tapping and the administration of the resin of copaiba, the ascites and general anasarca disappeared, and by the beginning of December the patient was already able to walk out."

I have yet a supplement to add even to this favorable report. The operation was performed on the 4th October, at which time the patient, by Dr. Walker, by me, by her husband, and by herself, was considered to be in a perfectly hopeless state, yet, as Dr. Walker tells us, within

two months from that date, she was able to walk out. But, in addition to this, on the twentieth of December she walked all the way from Notting Hill to my house, a distance of nearly three miles, and said she "felt perfectly well only a little weak and stiff from the walk." If the history of this patient and the result of the operation be not sufficient to encourage the performance of hepatic phlebotomy in suitable cases, I know not what will. So I will offer no comments upon the subject; but confidently leave the case as it stands to the consideration of the advanced school of thinkers among my medical brethren. Feeling certain that although this is but one case, as every thing must have a beginning, and all know that a single positive result is more valuable in deciding a question than a thousand negative ones, they will not fail to give it the attention it merits.—*Medical Press and Circular*, Feb. 24, and June 9, 1886.

Mackenzie (D. J.) on Continuous Rectal Alimentation; an Artificial Stomach.—The labors of Sir William Roberts, of Manchester, and others, in the field of artificial alimentation, have undoubtedly made the prospect of supporting life by rectal feeding more bright. There is, however, this difficulty in intermittent administration, that an enema, however small, is apt to cause a desire for defæcation.

It has occurred to me that we may imitate the process of nature more closely by the gradual passage of a fluid from an artificial cavity, in which its digestion takes place, into the rectum for absorption. In this way supply keeps pace with absorption, and the bowel is not loaded.

The way in which I proceed is as follows. A piece of celluloid catheter (No. 5) is passed into the anus for about two inches; if passed too far, there is a risk of its being closed by the folds of gut. When once introduced, the sphincter closes upon it and its presence is hardly felt by the patient; and the celluloid, rigid when introduced, becomes rather softer from the heat of the body. Previously to introduction, this piece of catheter is passed through a thick piece of india-rubber, perforated so as to grasp the catheter tightly. To the four corners of the India-rubber are attached tapes, which are tied two in front and two behind, to a band round the loins. The india-rubber is passed close up to the anus,

and the tapes are tied as tight as convenient. Over the outer end of the catheter is passed one end of a piece of fine india-rubber tubing, such as is used for babies' feeding-bottles. The piece of tubing should be about two yards long, and its other end slipped over a metal tube let in close to the bottom of a moderately tall narrow vessel, made of tin or other material, and capable of holding a pint of fluid. To increase steadiness the bottom is leaded on the outside. The only other apparatus required are a milk-strainer to fit the mouth of the vessel, a table about the same height as the bed on which the patient lies, a few small boxes or some suitable support by which the elevation can be varied, and an ordinary tea-cosy.

A pint of milk is warmed to a temperature suitable for pancreatic digestion; a little bicarbonate of soda, and a proper quantity of some preparation of pancreas, two teaspoonfuls in the case of Mr. Benger's liquor pancreaticus, are added, and it is allowed to stand in a moderately warm place for half an hour. It is then passed through the strainer into the vessel mentioned above. I find that, after standing half an hour, the milk leaves little or no curd upon the strainer, and, when strained, readily passes through the tubes. If the curdling of the milk, by the pancreatic extract, give trouble, it may be prevented by previously adding one fourth of its bulk of water to the milk.

The milk, having been put into the vessel, which acts as the artificial stomach, it is raised from two to two and a half feet above the level of the patient's bed, the height being altered according to the rapidity with which the milk runs through the tube. The vessel is then covered with the cosy to keep it warm, and, if necessary, a heated plate may be put under it at intervals. The pint of milk should run into the rectum in about three hours, which time fairly corresponds to the average digestion-period of pancreatized milk. If a desire for defæcation be felt, the flow should be made slower, or the apparatus entirely removed for a time.

When the milk has all run out, the apparatus is removed, some clean water passed through the tubes, and the patient allowed to rest for a time before re-introduction.

In this way, a patient of mine, suffering from cancer of the stomach, in whom the colon was obstructed at the junction of the

transverse with the descending portions, received an average of three pints of milk per day for a month, with an average daily evacuation of about a pint, consisting chiefly of curd; his nutrition was fairly kept up until vomiting of blood, mucus, and faecal matter became excessive, and, after death, the whole descending colon was found well nourished and containing condensed milk. His evacuations generally took place from two to eight or nine hours after milk had been administered, care being taken not to give any when the rectum felt irritable.—*Br. Med. Jour.*, June 19, 1881.

McKee (E. S.) on Consanguinity in Marriage.—At the close of a statistical paper on this subject the author concludes :

1. Like breeds like, good or bad, entirely independent of consanguinity.

2. Evil results have undoubtedly followed consanguineous marriages, but whether dependent upon consanguinity is extremely doubtful.

3. Intemperance, luxury, dissipation, sloth, and shiftlessness, as well as hygienic surroundings and innumerable other causes, among them the depraved moral state dependent on births the result of incest, should bear much of the responsibility laid at the door of consanguinity.

4. Testimony is often weakened by religious or other prejudices.

5. Data are of doubtful reliability, full of flaws and false reasoning. The noted cases are the unfortunate ones. The favorable are unknown or forgotten. It is the ill news which travels fast and far.

6. We as physicians know that there is much more illicit intercourse than is generally discovered. May not many people be related though not aware of it? Many marriages may thus occur between relatives presumed to be non-relatives, thus again vitiating statistics.

7. Statistics show about the same proportion of deaf-mutes, idiots, and insane persons, descendant from consanguineous marriages, to the whole number of those unfortunates, as the number of consanguineous marriages is to the whole number of marriages. They show fertility among the consanguineous to be slightly greater than among non-consanguineous. They also show a somewhat greater frequency of retinitis pigmentosa.

8. Atavism explains fully the fact that in

some instances healthy consanguineous parents beget unhealthy children. This, as is well known, occurs in most hereditary troubles. Furthermore, a less superficial examination may show this healthfulness to be only apparent.

9. Evil results in the offspring of consanguineous marriages prove that *something* was wrong. That it was the consanguinity has not been proven. It may have been one of a hundred things, and dependent on all of the antecedents for generations. Such results remaining absent after these marriages prove, for that case at least, that consanguinity was harmless, for it was known to be present. Further, if consanguinity was the cause, the effect should follow where the cause is present.

10. Consanguineous marriages which bring together persons having a disease or morbid tendency in common are dangerous to the offspring. Not, however, one whit more so than the marriage of any other two persons not related, yet having an equal amount of tendency to disease in common. Conditions present in both parents, good or bad, are simply augmented, and the result would have been the same were they not related.

11. Given, a malformation or disease firmly established, we have a tendency to breed true. Given, a defect or peculiarity in a family, race, or sect, this will naturally be propagated by intermarriage, *e. g.*, color-blindness is remarkably hereditary among the Jews and Quakers. The Quakers are educated to abhor color. Those who admire color separate themselves from the sect and thus intensify the tendency in the remainder. The defect has probably crept among the Jews, and is kept up and intensified by intermarriage. The same means has also had its effect among the Quakers.

12. Certain inherited diseases—as scrofula, phthisis, and rachitis—which are ascribed to consanguineous marriages, probably in every instance could be traced back to an ancestor.

13. Man is an animal, anatomically, physiologically, and sexually. He is subject to the same laws of propagation. In-and-in breeding in animals is carried on to an extent not only not permissible in the human species, on moral grounds, but also beyond the bounds of human possibility. Yet this is done by cunning breeders to improve the stock and put money into their pockets. The Jersey cattle have been bred

for the last hundred and fifty years on a small island, six by eleven miles. You would not raise them for beef or oxen, yet they command a high price for their milk and butter. This was probably the recommendation of the first cattle on the island, and this quality has improved from that time to this through in-and-in breeding.

14. It would be better for the offspring were consanguineous marriages under medical supervision. Certainly no better than for all marriages to be under like supervision.

15. The half a hundred abnormalities ascribed to consanguinity, including almost all the ills that flesh is heir to—among others, whooping-cough,—approaches the ludicrous.

16. The factors which lead to consanguineous marriages are, portions of country geographically isolated or mountainous, rendering communication with the outside world difficult; religious or political sects of an exclusive nature and aristocratic ideas. As examples, note the percentage of consanguineous marriages in Scotland, 5.25 per cent., to those in England, 3 per cent.; the preponderance in Martha's Vineyard, the commune of Batz, and among the Jews and Quakers.

17. The facts do not warrant us in supposing that there is a specific degenerative effect caused *ipso facto* by consanguinity.

18. Consanguineous marriages, no other objection being present, should not be opposed on physiological grounds.—*N. Y. Med. Record*, July 3, 1886.

White (J. P.) on the Action of Tin on the Animal Organism.—The question as to whether tin possesses toxic properties or not has at various times been brought before the public, by accounts of accidental poisoning from the use of foods which have remained for some time in contact with that metal.

After many trials with one thing or another, I decided to use a carbonaceous preparation—the tin triethyl acetate, which combination with lead Harnach had so successfully employed.

It has as a formula $\text{Sn} (\text{C}_2 \text{H}_5)_3, \text{C}_2 \text{H}_5 \text{O}_2$, and contains 44.7 per cent. metallic tin. It consists of long, needle-shaped snow-white crystals, only sparingly soluble in cold, but readily forms a half per cent. solution in warm water, without any precipitate on cooling.

As this solution seemed too strong, caus-

ing induration and sometimes abscesses at the point of injection, I reduced it to 1.5 mgm. (1-40 grain) to the ccm. water, which occasioned no more local trouble.

The effects of the drug seemed to be divided into two sets, those occurring immediately after its exhibition, followed by a period when the animal was comparatively well; the second set then appeared, beginning sooner or later according to the size of the dose administered.

To make a summary of the action of tin, from my investigations, we may accept that it has a direct action on the intestinal tract, inasmuch as it irritates the walls and produces increased peristaltic action.

The effects on the nervous system are, in the first place a paralysis, which probably depends principally on the spinal cord, for only in this way can we account for the general weakness of movement, particularly in the hind legs, the decrease of reflex sensibility after paralysis has commenced, being most marked just previous to death, which was observed in all the experiments.

Besides the paralyzing effect on the spinal cord, tin occasions an irritation of the nerve centres, both of the brain and medulla. This is decidedly noticeable on rabbits, in which there is considerable excitement of the sensorium, muscular tremor, sometimes increased to convulsions, and also in the derangement of respiration. The breathing is gradually increased in frequency, dyspnoea supervenes, and the animal dies from suffocation at the same time that paralysis gradually affects the cord. The pulse was irregular at first, mostly full and strong, but gradually decreased, both in strength and frequency; no direct paralyzing effect on the heart could be ascertained.

All of my experiments with the metal, when acted upon by muriatic, acetic, or fruit acids, were decidedly unsuccessful, from which I conclude that tin, though possessing decidedly toxic properties when introduced into the blood, is entirely devoid of danger when taken internally in any form that could arise from being in contact with fruits or vegetables.

In the first place, I do not believe that the metal would at all be influenced by long contact, but even if it were, it would not be absorbed, but pass off with the excretions without producing an effect. The cases of accidental poisoning reported I attribute to the solder used in closing the

can, or impurities—arsenic, copper, and lead—used in the composition of the metal, and not to tin itself.—*Cincin. Lancet-Clinic*, June 26, 1886.

Jewell (J. S.) on the Treatment of Epilepsy.—My remarks will be gathered under separate heads, in which attention is given at one and the same time to both hygienic and purely medical plans of treatment.

It seems to me there can be no question but that *the bromides* outrank all others in point of efficiency. But in the course of my experience I have found how important it is to give close attention to the special kind of bromide, the amount given, and the time of giving it.

After an extensive and careful trial of all the principal agents of this class, I have at last been guided by experience to the almost exclusive use of the bromide of sodium. I believe I am entitled by experience to say that the cautious but persistent use of the iodides is often attended by excellent result. Unless there are special reasons why these agents should not be employed in any given case, I usually seize the first favorable opportunity for their prolonged use, varying in different cases as to the dose given and the duration of the treatment.

Judging from the standpoint of my experience, twenty grains of the bromide may be regarded as, on the whole, an average dose for the adult; ten grains, an average dose for patients over six or eight, and under fifteen, years of age.

I have never, as a rule, found it necessary to administer the remedy oftener than three times in twenty-four hours. My usual plan, however, is to give not more than two, and sometimes only one dose, in twenty-four hours.

There are cases in which the fits come, as, for example, at the menstrual period, and at no other time, or they have more or less regular periods of recurrence. It is the duty of the physician to carefully determine this point by inquiry into the history of the case. In such cases a moderate dose of the bromide may be given at night, let us say; and, as the time approaches for the fits to occur, let the dose be either increased in size, or let more doses than one be administered during the twenty-four hours, but in every case with strict reference to the teachings of experience as to what time in the twenty-four hours the fits more commonly appear.

I endeavor, as far as possible, to avoid prolonged bromism, and, when practicable, to studiously avoid it altogether. I meet with many cases in which it seems a better plan to permit the patient occasionally to have a mild seizure, than to carry the action of the drug to a point where the fits are temporarily stopped at the expense of the organism in general.

It is my habit to give a variety of other drugs to meet special indications. Take it altogether, the most important aid to the bromides is the *cannabis indica*. It is a result of my experience that the persistent use of the drug now referred to, for one or more years, exerts a highly important good influence in the mitigation of epilepsy, when placed side by side with the bromide of sodium, the latter being cautiously administered as already described. In order to receive its full benefit, it must be given not less than three times a day, in doses sufficiently large to begin mildly to produce its ordinary physiological effects.

Next in order of importance is some agent to act with the bromide in steadying the heart's action. I have found nothing upon the whole so useful in this respect as a reliable preparation of *digitalis*. This is usually given with the bromide itself, and, according to the age of the patient, from five to fifteen drops at a dose. I have found in my experience that it may be given in the moderate doses named (if the preparation is thoroughly active) more or less steadily for a year at a time, with the effect to counteract in some degree the depressing influence of the bromide. The heart has acted more steadily, the circulation of blood has been less unstable and tricky, and upon the whole I have come to regard it as an almost necessary adjunct to the bromide.

Again, in some cases I have found it desirable where, in spite of the action of the bromide, sleep is unsatisfactory, especially if it be so in the latter part of the night, either to give upon retiring, or to arouse the patient soon after midnight and give, let us say, ten grains of chloral hydrate. Also at times during the day I have found it necessary, when the patient is, from any cause, the subject of much strain or excitement, to give an occasional dose of this agent to diminish the sensibility of the nervous system, particularly its reflex excitability. Latterly I have used, instead, moderate doses of *urethan*. It has seemed

to me, in about one-third larger doses, to be in important respects preferable in these cases to the chloral. I give these agents, however, chiefly to secure quiet sleep in patients afflicted with nocturnal and morning epilepsies, or at exceptional periods in their course during the day. The usual menstruum for the bromide is the most reliable specimen I can obtain of the *succus conii*. I have myself not the slightest doubt of its utility when reliably made and preserved. When the preparation is active it exerts the kind of sedative influence theoretically required in epilepsy.

Next in order I have found counter-irritation of importance. Upon the whole, the best form is that of alternate setons; first one on this side, then one on that. It is not necessary, though best, that they should extend above the level of the collar, just below the level of the vertebra prominens will answer.

In some cases, in which the pupils are very large, and in which the heart's action is weak, besides the digitalis, I give usually a reliable preparation of the physostigma. The use of this drug is pushed along in gradually increasing doses, until the pupil is constantly smaller during the day than it is ordinarily in the patient. I think I have seen marked incidental benefit from its use in the class of cases mentioned. There are cases, however, in which the extremities are disposed to be cold, and at the same time the pupils comparatively small. In such I have often observed there is a free flow of saliva, particularly during the sleeping hours. In all such I have employed, apparently with benefit, sufficiently large doses of belladonna to diminish the flow of saliva and produce an influence on the pupils. The drug, as a rule, is given at night, and thus acts during the sleeping hours. In such cases it seems to me the circulation has been improved in the surface, more particularly in that of the extremities of the body.

As to the prevention of attacks, nothing that I am aware of is entitled to special consideration except the amyl nitrite.

All forms of surgical interference—such as operation for phimosi, excision of the clitoris, removal of scars, trepanning the skull, dividing nerves, nerve stretching, or even the graver operation of tying the vertebral arteries—may receive attention at another time.

Hygienic management of epileptics I

consider, taken as a whole, to be nearly equal in importance to the more purely medical and surgical treatment.

The patients are directed to adhere to a diet very moderate in quantity. Once, or at most twice a day, fresh, simply prepared meats—such as beef, mutton, lamb, fresh fish boiled or broiled; oysters, eggs, milk; butter in marked moderation, all the more so in the case of patients who have occurred easily the bromide acne, or who have, independently of the effect of the bromides, a disposition to diseases of the skin; the best of light wheat bread, stale, either white or Graham; thoroughly well cooked mushes of oatmeal and Graham flour, and the like; crackers; boiled rice, either plain or in a pudding; plain bread pudding; chicken fricassee; tender venison; fresh game simply dressed, in great moderation.

These regulations in respect to diet are imperatively necessary in the case of those patients who have well-marked symptoms of digestive disorder, dyspeptic or otherwise.

The next point to which I direct attention in the hygiene of the digestive tube is that of keeping the bowels free. My plan, then, is to use voluminous injections of warm water, in which a little Epsom salts or common table salt is dissolved.

In bad cases of epilepsy in females, in which by consequence marriage is out of the question, I have been led to seriously consider the desirability of removing the ovaries, and of thus putting an end to the menstrual history. My opinion is that in bad cases of epilepsy, occurring in early and middle life, plainly connected with and dependent on menstrual disorders, the operation in question ought to be attempted, with the prospect of greatly ameliorating the attacks. Then, again, I am accustomed to direct my patients to avoid as far as practicable serious fatigue—whether physical or mental—and all undue emotional excitement at those periods when they are known by experience to be likely to have the attacks. For in case of great fatigue, both the sensibility of the nervous system as a whole is sharpened and its inhibitory power diminished. These, it need scarcely be said, are prime conditions, not to say causes, of attacks of epilepsy.

Such are some of the chief results of my experience in the treatment of the formidable disease in question. In looking over the results I have obtained, I do not know

that I can say many cases have been cured in the ordinary sense of that word; but I can truly say that the course of the disease has been greatly and favorably modified to an extent to which I had been formerly a stranger in my experience.—*Neurolog. Rev.*, June, 1886.

Treves (F.) on Rest in the Treatment of Scrofulous Neck.—The treatment of inflamed and damaged structures by rest can claim an antiquity that it shares only with the earliest records of surgical science. Viewing the matter from a liberal standpoint, it may be said that the familiar procedures directed against inflammation and disturbance are little other than ingenious and manifold applications of this rudimentary principle of treatment. It is strange that some of the commoner affections of the neck should have been considered exempt from such elementary influences where the art of their healing is concerned. It is needless to point out that scrofulous gland swellings in the neck, together with scrofulous abscesses and the sinuses that result therefrom, are, as a rule, very chronic in their course, and very obstinate in their relation to treatment. There is little in the anatomy of the neck to account for this. The part is vascular; it is easy of access; it is not dependent. The arrangement of the cervical fascia is certainly obnoxious to the easy progress of an inflammation, but in many of the most indolent cases this fascia is in no direct manner concerned. There is this, however, to be noted: that the neck is a part of the body that is in almost constant movement, and if rest is of real import in the treatment of inflamed tissues, then there can be few parts of the body where it is more clearly demanded than it is in this place. If in the axilla or the groin there be a glandular swelling or a chronic abscess or a lingering sinus, the first injunction to the patient is an injunction to rest. Few would undertake the care of such cases if the patient persisted in continued movement of the limb. Yet there is this anomaly—that when like disorders are met with in the neck the need of rest is overlooked, and it may be possible to see an individual with a sinus about the elbow treated by splints, and a like sinus below the jaw treated without restraint of any kind. It is difficult to understand how an inflamed gland situated beneath the sterno-mastoid muscle can heal so long as it is kept in a constant condition

of unrest by the movement of that muscle, and it is still more difficult to conceive an easy and wholesome career for a sinus or an abscess cavity so placed. I would venture to urge that the employment of rest should be a routine measure in the treatment of every case of scrofulous neck; that it should supplement all other local procedures, and among them hold a predominant place. The application of this measure may be considered before the detailed treatment of the affection is discussed.

For the last three years I have made use of a splint. It is made of felt, and takes its fixed point from the shoulders and back. The centre of the splint is strengthened by a slender strip of metal. This strip is carried up along the back of the neck, and at the occiput meets a cross-piece which is moulded to the outline of the skull. The cross-piece is kept in place by a narrow ribbon that encircles the forehead. In young girls and women the cervical part of the splint can be entirely concealed by the hair. The splint in children and in males may be secured by straps; in adult females it may be more conveniently attached to the stays. The felt is freely perforated, and the whole appliance is exceedingly light. I have made extensive use of this simple apparatus. It keeps the neck still, but not rigid, and after the first few days of its use it ceases to be irksome. Patients have worn it without interruption for three, six, and nine months. It is perhaps needless to say that it is not worn at night. Of its value I can speak in strong terms, and to this employment of rest I would ascribe results in some cases that I believe no other method of treatment would have secured.—*Lancet*, June 5, 1886.

THERAPEUTICS.

Guérin on Gelosine.—Gelosine is a mucilaginous substance extracted from the *Gelidium corneum*, a Japanese alga. It exists in commerce under the form of whitish bits, dry and of an extreme lightness. It is amorphous, uncrystallizable, colorless, non-nitrogenous and analogous to the lichenine or fucine of algæ. It dissolves in boiling water of which it solidifies 550 times its volume. The author suggested its employment as an excipient of various medicaments.—*Gas. Hebdom.*, June 18, 1886.

Hot Baths, Hot Packs, and Pilocarpine Compared.—Dr. Zelenetski of St. Petersburg, in order to examine the comparative effects of hot baths, pilocarpine, and hot wet-sheet packing on nephritis, treated the same patients on different days by means of each of these methods, observing the effects on the temperature, pulse, etc. Fifty-seven observations were made on seven patients, who were as nearly as possible under identical conditions. Twenty-three baths, eighteen hypodermic injections of pilocarpine, and fifteen hot packs were given. The hot baths produced the greatest loss of weight, averaging 801 grammes, and the packing the least, averaging 94 grammes, pilocarpine producing effects of an intermediate character. Here the mean loss of weight was 514 grammes—306 by perspiration, and 208 by salivation. The temperature rose considerably after the baths, and even at the end of three hours was always above normal. The packing caused it to fall at first; but after an hour it rose, and returned to its original height within three hours. With pilocarpine it was reduced for two hours, and then rose to normal. The pulse corresponded to the temperature with the baths, but became slower with both packs and pilocarpine. The patients expressed themselves as feeling the most improvement after the baths; the pilocarpine causing complications, such as headache and nausea, and in one case vomiting and collapse.—*Lancet*, June 12, 1886.

Grasset and Roullies on the Physiological Action of Vanilline.—Layet, in 1883,¹ called attention to the sometimes serious accidents which happen to vanilla workmen or to persons freely ingesting food flavored with it. Vanilline, which should be classed with the aromatic aldehydes, has, according to the experimenters, principally in frogs the following physiological effects.

Its effect is first convulsant—then depressant. The former action is on the cord and the latter on the cord and motor nerves, the sensory nerves being spared. It is a local irritant and increases the flow of saliva. It augments the excretion of chlorides and urea. It lowers the temperature and retards putrefaction. Doses of about a grain prove toxic in the frog in about an hour. Rabbits survive a dose of

gr. xx. hypodermically and 3 i. by the mouth.

Chloral seems antagonistic to it, while morphine seems a synergist.

The authors think it indicated in atonic and putrid dyspepsias and have given it in doses of from one to four grains and advise its free dilution.—*Gaz. Heb.*, June 4, 1886.

Hare (H. A.) on the Action of the Bromide of Nickel.—On the spinal cord the drug exerts its influences very powerfully and rapidly. After the giving of three grains hypodermically into the trunk there was progressive failure of reflex motion, and that this was not due to the influence of the drug on the nerve-trunk already described was proved by preparing a leg in the same manner as before, and by tying the artery of a leg previous to the administration of the drug, both of which procedures, of course, protected the nerve-trunks in those limbs. This result was verified by using strychnine and the bromide of nickel together, when it was found that larger doses of the excito-motor were needed to produce convulsions than when no bromide was used. Again, direct stimulation of the spinal cord when the drug was applied to it, failed to produce movement.—*Therap. Gaz.*, May 15, 1886.

Musser (J. H.) on the Value of the Oil of Eucalyptus in Some Malarial Affections.—From the author's studies can be inferred:

1. That the oil of eucalyptus is of decided value in about thirty-three and one third per cent. of all cases of intermitting malarial fever.
2. That it has no specific value in any one type of the disease.²
3. That the longer the duration of the disease, the less liable is it to do good.
4. That relapses are not prevented by it.³
5. That its influence on the spleen has not been demonstrated.
6. That a dose of ten drops four times daily has been a sufficient dose, but that five drops every three hours would be of greater value possibly.

² It failed in one case of puerperal malarial fever; it was not tried in remittent or continuous malarial fevers.

³ One of my private patients, who contracted intermittent fever in the South, and had very frequent relapses in the North, in spite of quinine, has not suffered a relapse since taking eucalyptus three years ago.

7. That good results are not attained as quickly as by large doses of quinine, but that a good effect should be observed within five days at least.¹—*Therap. Gaz.*, June 15, 1886.

Bedoin on the Treatment of Urethritis by Soluble Bougies Containing Cocaine and Boric Acid.—The bougies are made of a mixture of glycerine and gelatine, are 14–16 centimetres long, and vary in size from 11–12 French scale.

During the inflammatory stage he orders bougies containing 2–4 grains of hydrochlorate of cocaine, using 2–3 bougies per day. During the second and last stages he uses each day 2 or 3 bougies each containing 4 grains of boric acid.

The author intends to employ similar bougies medicated with sublimate in the proportion of about 1-20,000.

To introduce the bougies it is only necessary to dip them in water.—*Bull. et Mem. de la Soc. de Therap.*, May 30, 1886.

Da Costa (J. M.) and Penrose (C. B.) on the Diuretic influence of Cocaine.—The fact was noticed that cocaine seems to increase the flow of urine. During the past winter this matter has been more particularly studied in the wards of the Hospital, and with conclusive results. The urine was examined in upward of twenty cases in which the patient, were taking cocaine for one purpose or another, and, with a single exception, the flow of urine was greater; in some instances, indeed, it became a matter of much inconvenience to the patient by obliging him to get up at night. But as some of the patients were also taking other medicines, or there were in them special morbid states which might make the inferences doubtful, we selected eleven cases for study in which the urinary secretion had been watched for some time to vary but little, and to which during the administration of cocaine, as well as for a day or two before, no other remedy was given.

Is the diuretic action of cocaine persistent, or does it stop immediately upon the withdrawal of the remedy? We found that it did not; that, indeed, the urinary flow was apt to remain freer for some time, and

then appeared for a certain period to be more easily influenced by other diuretics than before. How far we can make use of cocaine for augmenting the excretion of special solid ingredients of the urine, must remain undetermined until this part of the inquiry has been more fully worked out.

The therapeutical application of these observations is self-evident. Irrespective of its diuretic influence, we ought to obtain advantage from cocaine in instances of weak heart with dropsy; and, so far as we have been able to pursue this line of investigation, such is actually the case. In uræmia, with scanty secretion of urine, the remedy is also well worth a trial.—*Med. News*, June 19, 1886.

Davis (N. S., Jr.) on Arsenite of Bromine in Diabetes Mellitus.—During the last year I have had opportunity to try this drug as suggested by Clemens in a considerable number of cases. They have so uniformly progressed favorably that I have thought it worth while recording them. It is difficult, however, to estimate justly the action of any drug in this disease, for we know that a proper modification of the diet will alone produce the most marked curative effects, and probably no one ventures to treat a case without simultaneously regulating the patient's diet.

I have continued to use the arsenite of bromine for some weeks after sugar had disappeared from the urine, and until the ability of the patient to bear a more varied diet had been tested. In these cases improvement—and decided improvement—came promptly upon the use of the remedy.

Three to five drops three times a day were generally given.—*Four. Am. Med. Ass'n*, May 8, 1886.

Smith (T. C.) on a Simple Remedy for Chronic Diarrhœa.—We do not offer the remedy we are about to name as one original with us. It was gathered from one of our leading journals a long time ago and stowed away for future use, if memory should not prove too treacherous to permit its recall.

Mr. X., an old man, formerly a Mexican soldier, came to me about two years ago for another disease, but incidentally mentioned his chronic diarrhœa, which he said had afflicted him most of the time since he was in the Mexican war nearly forty years ago. Soon after his recovery from the trouble for which he applied to me, I or-

¹ Dr. Hunter Robb, of this city, writes me he contracted intermittent fever along the Delaware River, and has had frequent relapses, all of which have been controlled quickly and effectually by eucalyptus. He experiences the same physiological effects with eucalyptus as he does with quinine.

dered for him a saturated solution of *salt* and *cider vinegar*, of which he was to take a drachm three or four times a day. I had little expectation of benefit for him. However, he returned no more for the remedy. Meeting him some months later I asked him about his chronic diarrhoea, when he said: "That salt and vinegar has cured me." He did not have it again for eighteen months, when it returned. The remedy was again used, but I do not know with what result.—*Med. and Surg. Reporter*, June 12, 1886.

Curtiss (R. J.) on Germitoxics as Medicines.—Last summer I read a report that salicylic acid was a remarkable remedy for diarrhoea of children in hot weather. I tried the drug, with only moderate success and moderate confidence, for I had become disgusted with its failure in rheumatism. Shortly afterwards I read in an English journal that salicylic acid or oil of wintergreen, not made from the plant, was inert as a germitoxic, and not valuable in rheumatism. Then I began to hunt around for the genuine drugs.

I was greatly pleased with the use of oil of wintergreen in diarrhoea of children. The children will take it and like it, and summer diarrhoea and oil of wintergreen will not inhabit the bowels of a child together. There is an antagonism there which counts. I will not attempt to give reports of cases in this connection, but I have more reliance in the drug than all other methods or remedies together, in this disease as well as in many others.

In two cases of pleuro-pneumonia terminating in abscess, ten drops of oil of wintergreen and ten grains of salicylic acid in a teaspoonful of whiskey every three hours seemed to have a curative effect. Certainly the recovery of two such cases occurring in men past sixty was almost miraculous.—*Peoria Med. Mo.*, May, 1886.

Maragliano on the Employment of Kairin in Typhoid Fever.—By strict adherence to the kairin treatment in fifteen cases of typhoid fever the author claims that he has made the course of the disease wholly or nearly apyretic. In seven cases the author believes that he undoubtedly shortened and lessened the severity of the disease. He believes that the effect of the kairin is due to its action on the typhoid bacillus, as it prevents its development in a culture liquid.—*Deut.*

Arch. f. k. Med., xxxviii., p. 248—*Cent. f. klin. Med.*, June 26, 1886.

Lepine (R.) on a New Method of Treating Pneumonia.—With a long hypodermic needle he pierces the hepatized lung for a depth of two or three centimetres, and injects two to five drachms of the fluid. He then partly withdraws the needle and pushes in another direction and makes another injection. Then through different intercostal spaces he makes three or four injections. He has injected as much as three ounces at one sitting. Some pain and cough with slight hemoptysis are caused, but the author has never seen any untoward results. He has tried various solutions, but the one that has yielded the best results is a 1-40,000 sublimate solution. Since employing this treatment he has lost no cases of pneumonia, and is confident that the severity and duration of the disease are lessened.—*Lyon Medical*, May 30, 1886.

Donaldson (F.) on the Circulatory and Respiratory Changes Observed in Animals Placed in the Pneumatic Cabinet.—The experiments have been performed by Professor H. N. Martin, of the Johns Hopkins University, and the writer. The animals employed were rabbits which had been chloralized. It was found:

1. When the animal is breathing air from outside of the cabinet, rarefaction of air within the cabinet causes a marked fall of general arterial pressure, but has no influence on the pulse-rate. The fall of pressure lasts only a short time (ten or twenty seconds), and is often followed by a temporary rise above the normal.

2. This fall of systemic arterial pressure depends on two factors: greater flow of blood to the skin when the air around the animal is rarefied, and greater accumulation of blood in the lungs when they are distended.

3. Of these two factors, accumulation of blood in the lungs is the more effective, for if the animal breathes air from the cabinet, and not from the outside, rarefaction of the air within the cabinet, in this case accompanied by no special expansion of the thorax, has but a trivial effect in lowering arterial pressure.

4. When the animal is breathing external air, rarefaction of the air within the cabinet usually has no effect upon the respiratory rate nor upon the extent of individual re-

spiratory acts, unless the fall of blood-pressure be considerable. If it be considerable, symptoms of anæmia of the medulla oblongata show themselves. In some cases there is more forcible dyspnœic breathing, and in some dyspnœic convulsions similar to those which occur when an animal is bled to death and due to the same cause, viz., deficient blood flowing through the respiratory centre.

5. The rapid recovery of general arterial pressure while the animal is still in a rarefied atmosphere, but breathing external air, is probably due to excitation of the vaso-motor centre, which, as is well known, is excited whenever the blood-supply is defective.

6. The brain enclosed in a rigid box, which is practically unaffected by variations in the atmospheric pressure, has its circulation more disturbed in the pneumatic cabinet, than any other organ, with the exception of the lungs.

7. Compression of the air within the cabinet while the lungs are in communication with the external air, causes a considerable transient rise of blood-pressure. This is probably mainly due to the forcing of the blood from the cutaneous vessels, but there has not yet been sufficient time to thoroughly investigate this point.

8. Compression of air within the cabinet while the lungs are in communication with the external air, slows the pulse as the arterial pressure rises. This is probably due to excitation of the cardio-inhibitory centre by increased intercranial blood-pressure. Further experiments are, however, necessary before this can be positively stated.

9. In certain cases, when the air within the cabinet is rarefied and the animal is breathing external air, the respiratory movements cease altogether for several seconds. As to the cause of this physiological apnœa, we are not yet ready to form an opinion. It may be due to extra accumulation of air in the alveoli of the lung, or to distension of the lungs exciting those fibres of the pneumogastric which tend to check inspiration.—*N. Y. Med. Record*, May 22, 1886.

Pernod on the Antistrumous Properties of Morrhuol.—The writer has had charge of many young persons, from fourteen to twenty years old, detained at the Rhone Penitentiary, and states that at least 50 per cent. suffer from adenitis which they acquire by inheritance, by confinement, and

by their invariable custom of leaving the neck and chest uncovered all the year around. In these cases cod-liver oil is not well borne, and after three months of careful trial he asserts that morrhuol acts with surprising rapidity and precision.—*Le Prog. Méd.*, June 12, 1886.

[For the mode of preparation of morrhuol see *MED. ANALECTIC*, Jan., 1886, p. 8, or *Bull. gén. de Thér.*, Nov. 15, 1885.—Ed.]

Hudson (N.) on Kola.—A lady of thirty-six, had suffered during childhood from rheumatism. Up to a recent period, however, she had been in good health and able to lead a busy, active life. Eighteen months since, she was attacked with severe endocarditis, from which she recovered slowly, and with a damage to the mitral valves (insufficiency). The action of the heart was feeble and irregular, and there was a good deal of dyspnœa, faintness, and fatigue upon even slight exertion. She had always been subject to occasional headaches, and these now became periodic and severe, occurring at first at intervals of four or five weeks, and lasting two days. Later they had increased in frequency and intensity, coming on about twice a month, each attack causing three days of suffering so severe as to fill the patient's mind with constant dread of a recurrence. The discovery of a ratio of urea much below that of normal urine, with the existence of an occasional granular cast, established the conviction that the headaches were uræmic in character.

About three months since, she commenced the use of the kola-paste, taking about ten grammes once or twice daily, in hot milk, prepared in the same way as chocolate. During the first nine weeks of its use there was no recurrence of headache. Then there was a comparatively mild attack, which may fairly be attributed to a suspension of the use of the kola in consequence of the marked improvement. The general condition has materially improved, the heart's action is much more regular, and the attacks of dyspnœa and faintness have nearly disappeared. The most characteristic effect seems to have been an immediate relief of the sense of fatigue, a sense of *bien-être* and cheerfulness to which the patient had been long a stranger. The employment of the kola seemed to be satisfying to the appetite, for, whenever taken, it appeared to serve as a substitute for the

next following meal. But the nutritive processes were not impaired; on the contrary, the bodily weight increased from ninety-eight to one hundred and five pounds. No marked change in the character of the urine has been observed. The quantity voided has somewhat increased, but the total amount of urea excreted remains at about ten or twelve grammes daily.

Caffeine, convallaria, and digitalis were tried in this case with negative or only temporary results.—*Phila. Med. Times*, June 26, 1886.

Chiara and Mori on Profound Anæmia Cured by Hypodermic Injections of the Citrate of Iron.—To a woman, anæmic from repeated metrorrhagia, Chiara gave, by deep hypodermic injections, two grains of the citrate of iron in fifteen minims of water.

At the outset of treatment the blood as examined by Hayem's method showed

Red globules,	1,302,000
White "	6,200

while after twenty days it was

Red globules,	3,503,000
White "	6,200

His assistant Mori reported three confirmatory cases.—*Bull. gén. de Thérap.*, June 15, 1886, from the *Raccog. Med.*, 1886.

Jacoby (G. W.) on Massage in Nervous Diseases.—Whoever has paid any attention at all to the treatment with massage cannot fail to have been surprised by the rapidity with which many cases of lumbago and torticollis may be entirely relieved. I have seen many cases cured after two to three applications, and all authors agree that but very few séances are necessary. Some cases require more time than others, but the final result is always an excellent one. Fresh cases are more easily benefited than old ones. As regards the kind of manipulation to be employed, there is not much to be said. Effleurage and massage à friction for superficially situated muscles, and pétrissage and tapôtement for those more deeply situated. The hand will be found to be the most serviceable in these cases for executing tapôtement. Klemm's muscle-beater acts too superficially to be of any value.—*Four. Nerv. and Ment. Dis.*, April and May, 1886.

Spontaneous Transformation of Morphine into Apomorphine.—A solution of hydrochlorate of morphine for subcutaneous injection (three per cent.) was ordered for a patient, and its injection was promptly followed by relief of the pain, without any gastric symptoms whatever. Eleven months later, the patient made use of the same solution; but this time the injections gave rise immediately to violent and uncontrollable vomiting. The solution was given to a well-known analyst at Paris for examination, and he ascertained that apomorphine was present, thus accounting for the sickness. He recommended, in consequence, that solutions of the salts of morphine should never be kept longer than four weeks, and that freshly prepared solutions should not be mixed with the old.—*Brit. Med. Jour.*, June 26, 1886.

Juranville (R.) on the Somniferous Action of Boldo-glucine.—*Thèse de Paris*, 1885.—Boldo, employed for a long time in Bolivia, Chili, and Peru in the treatment of hepatic diseases, contains an alkaloid boldine, discovered in 1874 by Cl. Verne and Bourgoin, and also an aromatic glucoside obtained in 1884 by Chapoteaut. It is with the latter substance that the author has experimented.

An intravenous injection of gr. xxx. to cv. of the boldo-glucine produces sleep in dogs. During sleep the pulse becomes more rapid and less full, but remains regular, while the arterial tension is unchanged. He found it acted well as an hypnotic in insane patients, given by the mouth or enema.—*Gas. Méd. de Paris*, June 19, 1886.

Regnauld (J.) and Villejean (E.) on the Anæsthetic Properties of Formene and its Chlorine Derivatives.—The tetrachloride of carbon is capable of producing anæsthesia or at least analgesia. Its inhalation causes persistent phenomena of intense agitation, accompanied by contracture and clonic movements. Ocular and tendon reflexes persist throughout. If the inhalation is carried to the suppression of these phenomena, there occurs a cardiac syncope which kills the animal. In a word the agent is an unmanageable one.—*Bull. gén. de Thérap.*, June 15, 1886.

Barnum (J. P.) on Hydrobromate of Hyoscin; its Physiological Effects.—Having occasion to-day to prepare

some granules of hydrobromate of hyoscin for the Central Lunatic Asylum, I accidentally touched the index finger and thumb used in opening the package to the lips, and noticed a peculiar bitter, sweetish taste. The effects were so peculiar that I thought (this being a new pharmaceutical) it might be of interest to some of your readers to describe them. The pupils of the eye soon became dilated and the vision impaired. The solar light was decomposed, and the gaslights were surrounded with a halo, the first band being green, fading into yellow, succeeded by orange, violet, and red. The largest print could not be read. Faces even were indistinct. No other unpleasant physical effects followed, but an exceedingly pleasant, sedative effect on the nerves, restful and quieting, resembling the sensations produced by a mild cigar, smoked after a hard day's labor. I was soothed as if by morphine, and quieted as if by chloral. The digestive functions were not impaired, a hearty supper was eaten with relish and digested without difficulty. The sedative effect continued for about four hours, and was not followed by the nausea and other unpleasant symptoms usually experienced when either of the other drugs have been taken. If this agent produces similar effects on others, I am inclined to believe that it will be a valuable addition to our sedatives, producing quiet and rest without the disagreeable after-effects of most of the drugs of this class now employed.—*Am. Pract. and News*, June 12, 1886.

Mayes (J. A.) on the Analgesic and Hypnotic Effects of Jamaica Dogwood.—In general practice I prescribe the Jamaica dogwood very largely as a substitute for opiates, and am very seldom disappointed in obtaining excellent results. Now and then I find cases in which it does not produce sleep; but, as the pains are relieved, it appears that the hypnotic effect is not as certain as the anodyne effect.

I will state in one sentence my verdict—it has nearly all the good properties of opium, and none of the bad.

Please try the following prescription for delirium tremens, or *mania a potu*. It has worked wonders in my hands: $\mathcal{R}$ Fl. ext. erythroxyton coca, six drs.; fl. ext. celery, four drs.; fl. ext. Jamaica dogwood, four drs.; Hoffman's anodyne, *q.s.*, to fill two-ounce bottle. Dose, two teaspoonfuls every

two hours till sleep is induced, then one teaspoonful every three, four, or five hours till the nervous system returns to a normal condition.—*Am. Pract. and News*, June 26, 1886.

TOXICOLOGY.

Foy (Geo.) on Poisoning by Butyl Chloral and Gelsemin.—Some short time since I was sent for by my friend, Dr. Wm. Montgomery, to visit a young lady, æt. seventeen, who, to relieve a violent attack of facial neuralgia, had taken four pills, consisting of five grains of butyl chloral and one twelfth of a grain of gelsemin in each pill. The dose marked on the lid of the box was "one pill every three hours whilst pain continues," and on the evening preceding she had found one pill sufficient to relieve an attack from which she was then suffering. But, naturally impatient, and made more so by severe pain, she, to, as she thought it would, suddenly cut short the pain, took four pills together, and lay down on a sofa to rest. In about half an hour she rolled off the sofa, falling so heavily on the floor as to alarm some friends who were in the room underneath. Her friends, alarmed by the noise of the fall, rushed up to the room to find her unconscious on the floor; and they assert that some twitchings of the limbs and facial muscles occurred. Dr. Wm. Montgomery was sent for when the patient could not be roused from the faint in which she was supposed to be. On his arrival Dr. Montgomery described her as being cold, with a weak pulse and feeble heart impulse, the eyelids closed, and the eyes, on the lids being lifted, as turned up and the pupils dilated.

Learning what had happened and seeing the prescription, he set about emptying the stomach and restoring the circulation. The stomach was emptied, but the pulse getting almost imperceptible and the heart's impulse being very weak, he asked that I might be sent for. On arriving I found the patient pulseless, very cold, breathing very slowly and hardly perceptible, sensibility of skin and conjunctivæ absent. The skin was particularly white and cold, but the mucous surface of her lips was a purplish blue. Mustard having been applied over the heart and hot jars placed around her feet and legs, I dropped a drop of the 1 per

cent. solution of nitro-glycerine on her tongue, and the effect was better than I had thought possible. In less than one minute its effect was most marked, the pulse became perceptible, the respirations became deeper and more frequent, congestion of the lips diminished, and in a short time the circulation and respiration became so restored as to enable us to give a favorable prognosis to her friends. Placed in a warm bed she so far recovered as to take a warm drink of egg-flip, after which she got some hours sleep, and made an uninterrupted recovery.

The symptoms, as I saw them, closely resembled a case of chloral poisoning which some years since I attended, in which case recovery took place, though 140 grains of chloral had been taken, the antidote being hypodermics of anhydrous ether. Butyl chloral is looked upon by the profession and, I think, by the public as virtually non-poisonous, and I know of no case of poisoning by it.

Gelsemin is credited with some cases of poisoning, in six of which convulsions were noted, and the twitchings which my patient's friends noticed her having may be due to the gelsemin.—*The Med. Press and Circular*, June 12, 1886.

A Novel Source of Oxalic-Acid Poisoning.—A remarkable case of accidental poisoning recently occurred at Gravelly Hill, Birmingham, resulting in the death of a boy, aged five years. We gather from the report at the inquest, in a newspaper, that, on a Friday, the deceased ate a large quantity of green sorrel, but without any apparent harm. Early on the following morning, however, the child awoke, and, feeling dazed and thirsty, he arose, took up a jug believed to contain soap and water that was standing on a table near at hand, and drank copiously. Alarming symptoms immediately ensued, and the boy became unconscious. On making an examination of the boy, the symptoms were seen to be incompatible with the drinking of simple soap and water. The boy expired about five o'clock on Saturday evening, never having recovered consciousness. The *post-mortem* examination of the body revealed the fact that the action of the alkali in the soap and water had liberated the oxalic acid contained in large quantity in the green sorrel, and, consequently, caused death from poisoning from salts of sorrel. The coroner having summed

up, the jury returned a verdict of "Accidental death." The case, as thus reported in the newspapers, presents several points for consideration. In the first place, it is difficult to understand how any alkali could liberate oxalic acid from green sorrel. In fact, such a process could not possibly take place in the stomach. Under the name of sorrel are included plants of totally different natural orders. This *oxalis acetosella* is the common wood sorrel, belonging to the order *oxalidaceæ*, while more than one species of *rumex* of the order *polygonaceæ* are also called sorrel. All, however, contain oxalic acid in combination with potassium as an acid salt. This is but sparingly soluble in water, and the only manner in which any alkali could render it more active, would be by converting it into the more soluble and more easily absorbed neutral salt. It is, however, difficult to conceive that the deceased, having consumed a quantity of green sorrel overnight, should have remained without any serious symptoms until the morning, and that then, by this chemical conversion of the acid salt remaining in the residual undigested sorrel, have immediately developed alarming symptoms. There seems to have been no chemical analysis performed, and we are at a loss to understand how a *post-mortem* examination without it could have revealed "the fact that the action of the alkali in the soap and water had liberated the oxalic acid contained in the green sorrel." It seems, on the whole, quite as open to suppose that the jug containing soap and water also contained some poisonous substance, and that that poisonous substance caused the death of the boy.—*Brit. Med. Jour.*, June 26, 1886.

A Child Poisoned by the Nurse's Cosmetics.—A German practitioner being called to see a child five weeks old who was continually crying and suffering from colic, and whose skin was of a dull bluish tint, was somewhat puzzled as to diagnosis, until looking at the nurse's face, and seeing it of a brilliant white and red tint, he touched the surface, which left a greasy stain on his finger of a cosmetic rich in lead. This poisonous substance the nurse had long been in the habit of using, for the purpose of improving her complexion. The cause of the child's colic being removed, and appropriate treatment adopted, a cure was effected in a few days.—*Med. News*, May 29, 1886.

MEDICINE.

Raymond on Uræmic Paralysis.—From his studies the author concludes that, along with the comatose, convulsive, and delirious types of chronic cerebral uræmia, there can be placed a paralytic type characterized by paralysis, limited to a muscular group, often extending to one half the body, and accompanied by more or less complete anæsthesia.

That often the uræmic attack simulates apoplexy from hemorrhage or cerebral softening.

That in the pathogenic interpretation of these facts one must lay great stress on the cerebral œdema which, of variable intensity in different parts of the brain, can explain in some cases the limited paralysis.

That in cases where old lesions exist the cerebral œdema can cause to reappear symptoms which have disappeared.—*Paris Medical*, May 29, 1886.

Steavenson (W. E.) on Night Palsy.—The first writer on the subject in this country was Omerod, "On a Peculiar Numbness and Paresis of the Hands."¹ He thus describes the affection: "The symptoms are remarkably definite in character. They occur in women, usually about the climacteric age, and begin in the night. On waking the patient has a feeling in the hands, or hands and arms (commonly on both sides), of numbness, deadness, pins-and-needles; sometimes there is actual pain, severe enough to wake her. There is also loss of power; the hands and arms become useless, and she cannot hold things. This may so far predominate that the patient comes to be treated for a supposed paralysis. Sometimes also the patients say that the hands swell, the veins swell, etc., at the time. The symptoms pass off in a little time, and rubbing suggests itself as a natural remedy. But occasionally they manifest themselves in the daytime also, and then principally when the patient sets about her ordinary work—washing, scrubbing, needlework, etc.

In a paper on the same subject, published, Saundby says:² "I allude to a peculiar numbness and tingling, very similar to that produced by pressure on a nerve, occurring sometimes in one, sometimes in both, upper

extremities; at other times it is present in both upper and lower extremities, or in the upper and lower extremity of one side of the body. This sensation of numbness and tingling is more or less painful, it is accompanied by a transient loss of power; is relieved by rubbing; occurs distinctly in paroxysms; is most apt to occur at night, when it frequently disturbs sleep; is sometimes said to be accompanied by blueness and coldness of the hand, narrowing of the calibre of the radial artery. In its minor forms it is more common in women, but the most severe cases I have seen have been in men; it occurs with about equal frequency in either arm; it is less frequently bilateral, while the paralytic and hemiplegic forms have come under my notice less commonly. Most of my patients have been persons past middle life, and I have never met with it in any one under twenty-five years of age. It is, in my experience, distinctly connected with disordered stomach, and readily yields to treatment."

Notley³ believes the affection to be due to anæmia. All his patients were women. In only one did the malady exist at the climacteric period. All his cases were relieved by iron, but he says: "I am bound to say that the peculiar numbness of the extremities was never entirely cured." He does not think that patients who suffer in this way are troubled more than others by gastric disturbance.

I have had several cases of this affection sent to me for treatment in the Electrical Department of St. Bartholomew's Hospital, and venture in this paper to give a review of the subject, and to record the opinion I have formed of the nature of the complaint. All my patients have been women, usually at or near the climacteric period of life. Some few had passed it by a year or two. I have seldom seen the affection in an old woman, but I remember to have seen one case over the age of sixty years. I have also met with it in women between the ages of thirty and forty years. The attacks have very often followed a hard day's work, such as washing and scrubbing, or have been due to other causes producing nervous exhaustion. The patients have usually been awakened towards morning by tingling and pain in the arms. The limbs seem swollen, and there is a sensation of

¹ *St. Bart. Hosp. Reports*, vol. xix.

² *Lancet*, September 5, 1885.

³ *Lancet*, September 19, 1885.

bursting and fulness. Real swelling is very slight if present at all. Patients cannot raise the arms to the head. Sometimes with a little rubbing the arms recover somewhat, but after raising them for a short time, for such a purpose as dressing the hair, they again become useless, much in the same way as with a painter who is working at a point above his head, and has to rest his arms occasionally on account of the useless feeling which is so produced in them. This fact might be used as an argument in favor of Notley's theory that the affection is due to anæmia. Patients who suffer from this form of paresis often have a dread of impending paralysis, and look upon these morning attacks as premonitory symptoms. After a short time and with rubbing, the numbness and loss of power pass away. When tested by electricity the muscles of the limbs react normally to both the continuous and the interrupted currents.

I recognized this affection in 1882, and included several cases under the head "Loss of Power and Pain in the Arms" in a paper I wrote on "The Electrical Department" in the nineteenth volume of the *St. Bartholomew's Hospital Reports* (1883). It is very much more frequent at the climacteric period than at any other time, but it does not occur in women of what I may call an hysterical temperament at an earlier age.

In the class of patients I see at the hospital it often seems to be induced and associated with hard manual work. Very few other observers but Saundby have seen the affection in men.

Is the affection due to gastric irritation or to anæmia (as suggested by Notley), or is it purely a functional disturbance of the nerves occurring in a particular sex, with a particular temperament, and usually at a certain time of life?

Weir Mitchell, in his work on "Diseases of the Nervous System," in the chapter on "Some Disorders of Sleep in Nervous or Hysterical Persons," alludes to the several forms of sensory and motor disturbances which occur usually just at the time of passing from consciousness into a state of sleep. He says they are "quite common among hysterical women, more rare among men." In the case of a physician that he quotes some of these symptoms came on when he had been reduced rapidly to a weak anæmic condition "after a season of

greatly excessive labor," but he says, "most of the cases are women worn out, or tired out, and hysterical." If such symptoms occur in men he considers them chiefly due to excessive tobacco smoking. He says it occurs "in a variety of degrees in feeble and anæmic persons; but far more common among women than among men. . . . The less common form of night palsy is perhaps also the most serious, but may be, like the usual examples, but an expression of hysteria or the exhaustion felt by an ill-nourished brain during the long fast of the sleeping hours. . . . In weakly and hysterical people it means simply a temporary failure of function owing to imperfect nutrition."

Mitchell seems to think the best remedy of these troubles is to be found in general treatment, good diet, iron, attention paid to the state of the stomach and bowels, and faradic stimulation. He also recognizes the value of the bromides.

Ormerod says, "It seems possible that in the general depression of function which takes place during sleep, the hands and arms (or rather their nervous apparatus) overtaxed during the day by prolonged cold or exercise, share more deeply than other parts, and that they are thus less readily roused from it. . . . The cause alleged by the patient is usually the use of water in washing, scrubbing, etc.; sometimes other work, such as needlework. . . . The women are generally over forty, about the time of cessation of the menstrual function, though this is not always so. Some are no doubt hysterical," but Ormerod thinks that "there is, on the whole, less intrinsic evidence of hysteria than one would expect." He says "that bromide of potassium has in some cases given marked relief."

Sinkler, who has also written on this subject, recognizes overwork as the cause of the symptoms in some of his patients. Most of his patients were women at about the change of life, though he has found the same condition occasionally in men. He found massage, galvanism, bromide of potassium, and ergot, the most useful remedies. He seems to have been best pleased with the effects of ergot. He found strychnine of great advantage after the numbness had disappeared.

Moir,¹ says that in his cases the "suf-

¹ *Lancet*, Sep. 26, 1885.

ferers were all women at or about the climacteric period. Dyspeptic symptoms were present in all save one. He has found the bromide of potassium the most useful drug in treatment, and he is inclined to think that the functional disorder under consideration is connected with vaso-motor disturbances, like many other indefinite phenomena experienced by females about the period of the menopause."

Saundby believes the condition to be distinctly connected with disordered stomach. He has seen the most severe forms of the malady in men, but "in its minor forms it is more common in women." Most of his patients have been past middle life. He attributes very little influence to the menopause. He relies for treatment upon calomel and rhubarb, but the first case he quotes certainly derived benefit from bromide of potassium, and he says that in her case he could "not elicit any symptoms of dyspepsia."

I have been led to consider this affection a functional derangement of the nerves, occurring for the most part in women at or about the climacteric period, and in my experience appearing to be more likely to occur in women of an hysterical temperament. I believe that the period of the menopause has a decided determining influence on the occurrence of these seizures. As Saundby says: "We are all familiar with the various forms which neurasthenia takes in climacteric women," and I believe that this "special form of numbness of the extremities" is one of them. At or about the time of the cessation of the menstrual function women's nervous systems undergo a profound change. Often at this time nutritive changes are also apparent. A thin woman becomes corpulent; those with any tendency to the growth of hair on unusual parts again develop it, although the growth may have ceased or almost disappeared during the child-bearing period; the tendency to the return of hysterical symptoms is also most common. All the patients I have seen who have suffered from this affection have been women, and in this I agree with most other observers. It very possibly occurs as often in men as true hysteria does. The coffin-maker described by Weir Mitchell as being troubled with some form of this complaint was a poor, weak, hysterical individual.

The suggestion that this affection may be due to gastric irritation is new to me.

Dyspeptic symptoms were certainly not prominent in, or complained of by, my patients. All the cases I have had have recovered with rest, bromide of potassium, and galvanism.—*Practitioner*, June, 1886.

Peter on Tremulous Paresis of the Heart among Alcoholics.—Paretic tremors have long been noted in the voluntary muscles of chronic alcoholics, but never, according to Peter, in those of organic life, as the heart. The myositis with granular, fatty degeneration of the muscular substance of the heart has long been recognized as a constant lesion in chronic alcoholics, but the functional perturbation, characterized by weak contractions and tremors, has been overlooked.

The heart-sounds, in the patient under consideration, were weak, ill defined and soft. A sphygmographic trace showed both the cardiac weakness and the state of tremor.—*Gaz. des. Hép.*, June 12, 1886.

Crothers (T. D.) on the Home Treatment of Inebriates.—The home treatment of inebriety is at present confined to measures for relief of the acute symptoms of intoxication. These means are often empirical, and should not include narcotics, except in special conditions and cases.

Home treatment of inebriety, where the family physician can become acquainted with all the facts of the history, and know the influence of the surroundings, and apply the means of prevention, gives the greatest promise of cure.

Inebriety must be fully recognized as a disease requiring exact means and remedies for its removal. Then the physician can bring to his work an intelligent congregation of the friends and the patient himself, and the cure will be a matter of certainty.

Inebriety, as a disease, is curable to a large extent, but with the means used by the moralists and reformers it is practically an incurable malady. Inebriety, scientifically studied and treated at home, can not only be prevented, but cured, in a large proportion of cases.

The heart's action should engage attention. If this is wavering and uncertain, all narcotics, and even stimulants, such as alcohol, ammonia, camphor, or electricity, are dangerous. If it is firm and steady, many and varied remedies can be used. In the former case, begin with a hot bath, either Turkish, vapor, or even a hot sponge

bath. Continue its use for some time with saline drinks as often as the patient will take them. It is a good plan to cover up the taste with tinct. of cinchona. If maniacal, always have a trusted attendant in the room, who will execute all orders and prevent any injury. Do not use chemical restraints in the form of chloral or other narcotics until the active stage of the delirium has subsided. Wait until the patient exhibits signs of exhaustion, then give freely lupulin or valerian, which, as a rule, are quite sufficient to bring on sleep and rest to the brain and nervous system. Remedies which stimulate the secretions, including calomel and salines, are of the first importance. The only stimulants that can be given with success are hot milk, beef-tea, or hot acid drinks. If the stomach is deranged, beef-tea or milk is often not tolerated; then acids or the salines with bismuth are valuable.

The hot bath and hot sponging give very marked relief in most cases. Free action of the bowels and kidneys and active respiration also bring great relief to all the acute symptoms. Opium in my experience has been both uncertain and dangerous. One fourth of a grain of morphia has produced a very dangerous lowering of the heart's action, and in other conditions of the same case no effect was noticed. Opium in any form is also dangerous, from the fact that it is quickly substituted for alcohol. In other cases, the effect of opium is more seductive than alcohol, and the relief more positive, hence it is used ever after. Chloral is also dangerous because of its uncertain action on the heart. The bromides are cumulative and depressing, and the various other narcotics are uncertain and irregular in their action. When the acute symptoms of intoxication subside, craving for spirits and various morbid impulses and delusions appear. Various remedies have been found of value to allay this craving. I find that small doses of a combination of chloral, bromide, hyoscyamus, cannablis indica, with a solution of bark, very valuable given at night. Lupulin, cinchona, nux vomica, and caffeine are very useful, and can be given in many ways and forms.—*Med. and Surg. Reporter*, June 19, 1886.

Ford (W. E.) on the Early Management of Cases of Mental Depression.—Nearly all, if not quite all, cases of actual mental disturbance begin with a period of mental depression. Conditions

of mental depression are amenable to such early management as to save many from actual insanity, while in others it may shorten the attack, and withal will lessen the chances of accidental death or violence. A careful diagnosis ought always to be made in cases of mental depression. Where there is intellectual perversion it does no good to attempt to amuse or divert the patient out of his sickness, or to advise travel. Some cases of sudden onslaught ought to have sedatives early to diminish sensibility, and thus to abort the disease. In every instance of failure to obtain the fullest confidence of the patient, or where there are persistent suicidal attempts or long-continued refusal of food, it is better to place the patient in an asylum. The more simple cases without delusion, but with disturbed emotions, are improved by change of scene, travel and diversion, with appropriate medical treatment.

The medical treatment must aim, of course, at restoration of bodily health, together with such remedies as may be necessary to improve the condition of the circulation. After the first few weeks hypnotics are rarely required with any regularity, though at first they are often a necessity. Combinations of lactucarium, valerian, and virburnum are best for this latter purpose, with the addition of small doses of chloral at bedtime if necessary. These remedies during the day, without the chloral, will often add much to the comfort of the patient. If restlessness to the extent of exhausting the patient comes on, then the addition of minute doses of bromide of morphia $\frac{1}{16}$ to $\frac{1}{8}$ grain four or five times a day is useful. The tonic effect of these small doses of morphia is very marked, and either with other tonics or with the nerve sedatives mentioned is an important part of treatment. As to tonics, I do not think there is any thing new of much value. Coca and its preparations are disappointing, as are Tokay wines. Cod-liver oil ranks first, followed next by arseniate of soda in small doses, bichloride of mercury in combinations with quinine, perhaps, and the phosphates—of which there are so many admirable preparations. For women especially, the acid phosphates in a little Tarragona port wine answer admirably. When the circulation is so sluggish that the capillaries become distended, and the skin and lips and finger-tips are turgid, cool salt-water sponge baths followed by mas-

sage or galvanism answer an excellent purpose. In all cases, however, where it is not possible to obtain the confidence of the patient so that the mental processes are fully known to the attendant, or where there is persistent refusal of food, or such strong suicidal or destructive tendencies as to require minute watching day and night, it is better to remove the patient to an asylum.—*Medical Press of Western N. Y.*, June, 1886.

Jacoby (Geo. W.) on Trigger Finger (Doigt à Ressort).—This affection is, strictly speaking, one of a surgical and not of a neurological nature—that is, if its pathology as at present accepted is correct. These cases, however, when encountered by the general practitioner, are liable to be referred to the neurologist; hence the importance of being able to diagnose the condition. Doigt à ressort is the name given by Nélaton to a peculiar inhibition of motion in fingers otherwise normal. Flexion and extension are arrested at a given point, and, if completed by force, the movement resembles the closure or opening of the blade of a pocket-knife. Sometimes only extension is interfered with. As a rule, muscular effort alone is sufficient to overcome the obstacle. Generally the entire motion is painful, particularly at the time of the snap. The patient usually locates the pain in the interphalangeal joint, but a careful examination will show that it is at the metacarpophalangeal articulation. Externally the finger presents nothing abnormal; but pressure over the last-mentioned joint almost always produces pain, the painful point being usually confined to a small place upon the volar surface of the flexor tendon. In all cases except those of Busch and his own, a hard lentil-sized body, which was particularly painful on pressure, was found attached to the tendon about two centimetres above the digito-palmar fold. All authors lay stress upon the presence of this body, as it is, according to all theories of the mechanics of this phenomenon, essential to its production. In Dr. Jacoby's first case he did not remember to have found any nodosity, but as he did not pay particular attention to it, it may have been overlooked. In his second case, however, knowing of the cases of Busch, and of Marciano's criticism on them, he made a very careful examination, and could say positively that there was no nodosity or abnormality of any kind discoverable.

The writer gave tables of thirty-three cases by different authors. Twenty-one cases were in women and only ten in men, in two the sex not being specified. All the cases were in adults, excepting two. Occupation seemed not to have any influence in the production of the malady. The fingers affected were the thumb sixteen times, the ring-finger fifteen times, the middle six, the small finger twice, and the index-finger only once. In five cases more than one finger was affected. The etiology must, in the majority of cases, be sought in rheumatism; next in traumatism. In some cases no direct cause could be found. The diagnosis was easy. The prognosis was generally fair, as the symptoms usually disappeared after several weeks of appropriate treatment.—*Med. News*, June 19, 1886.

Godfrey (John) on Albuminuria.—The author concludes:

1. That under normal conditions, either albumen filters along with the other constituents of the blood plasma, or else the commonly accepted doctrine of the property of albumen to resist exosmosis under ordinary circumstances is true.

2. That at present we are unable to say that albuminuria does not act both as cause and effect.

3. That the tendency of albuminuria is toward nephritic lesion, no matter what the cause; but that in very many cases *causa sublata cessat effectus*.

That albuminuria may be either transitory or permanent; that the kidney will not tolerate the filtration of urine for an indefinite length of time.

5. That medical science has not definitely determined whether Bright's disease is a local or a general disorder; that while at present it is classed under the former head, nevertheless there are some valid reasons for believing it to be a constitutional affection, one of which is, that parenchymatous degeneration of the kidneys sometimes occurs in pregnant women too early to be set down to a mechanical cause.

6. That of the three kinds of albuminuria, the irritation form calls for the gravest prognosis, albeit it cannot be denied that originally it may have been the dyscrasic; that in determining its cause the most discriminating judgment and the most careful differentiation are demanded of the investigator.

7. That the presence of albumen in the

urine, owing to idiosyncrasy, may appear as a physiological process, and does not necessarily portend a serious threat to the constitution; that its presence is not at all times sufficient warrant to stay the hand of the surgeon, and that it should always be regarded as justifiable ground upon which to reject an applicant for life insurance is contrary to fact.—*Am. Pract. and News*, June 12, 1886.

Lockie (S.) on the Connection Between the (so-called) Albuminuria of Adolescence and a Gouty Inheritance.—The writer reports four cases of so-called albuminuria of adolescence, in all of which a gouty family history can be traced. The affection, so far as he is aware, seems to have been observed mainly amongst the more cultivated classes, and to be frequently associated with severe mental work, and, perhaps, still more, with mental worry, conditions which are well known to be the frequent precursors, in older people, of undoubted attacks of gout.—*Br. Med. Jour.*, June 8, 1886.

Kinsman (D. N.) on Intestinal Antiseptics.—

1. Digestion is due to unorganized and organized ferments, *i. e.*, bacteria.

2. Dyspeptic phenomena are probably due to bacterial action, *i. e.*, fermentations.

3. In these fermentations, ptomaines, indol, skatol, phenol, etc., are formed as in putrefactions.

4. The presence of indol, skatol, and phenol is evidence of bacterial action, *a*, because in the meconium there are none of these products; *b*, they are absent in the stools of nursing children; *c*, in the urine of the new-born and the nursing child there is no indican; *d*, when these children begin mixed feeding bacilli appear, and with them indol in the stools, and indican in the urine.

5. These bacilli, while causing putrefactions, produce poisons, which are normally destroyed in the liver, or stored therein, or excreted by the kidneys and bowels.

6. When the function of the liver is disturbed from any cause, so that the antiseptic action of bile is no longer exerted, the putrefaction and its products increase.

7. Mercurials, by arresting fermentations when in excess in the intestines, prevent the formation of ptomaines and autointoxication and supplement the action of the liver.

8. The beneficial action of mercury is due to its antiseptic properties.

9. Antiseptic medication is indicated in all cases when the indican is in excess in the urine.—*Four. Am. Med. Ass'n*, July 3, 1886.

PATHOLOGY.

Courty (F.) on "Le Mal Perforant."

—In a thesis on the above subject the author concludes that perforating ulcer of the foot may be caused by a number of lesions:

1. Traumatic neuritis, contusion, wounds, or tearing of nerves.

2. A neuritis coming on in the course of locomotor ataxia.

3. The mal perforant may precede the appearance of the tabes dorsalis, may develop with it, or may show itself late in the disease.

4. It may be caused by a neuritis occurring during diabetes, progressive muscular atrophy, general paresis, or chronic alcoholism.—*Rev. de Thérap.*, June 15, 1886.

Benner (B.R.) on the Relation of Phthisis to Insanity.—Of about six

hundred patients admitted to the N. H. Asylum for the Insane for the five years preceding the present, thirty-four, or nearly six per cent., according to the records, showed some connection with a phthisical taint, as existing either in the individuals themselves or their antecedents.

Of the thirty-four individuals, whose records I was able to trace with more or less minuteness, there were seventeen men and seventeen women. Of these, fourteen men and thirteen women had a phthisical parentage, and one man and two women had phthisical ancestry in direct line other than parents. Eight men and two women, most of them with phthisical parentage, had *insane* grandparents, uncles, or aunts. This illustrates the not unfamiliar fact that insanity and phthisis frequently interchange from one generation to another.

It is to be observed, also, that eight patients had phthisical brothers or sisters, or both; showing how the constitutional fault may manifest itself in both forms in the same generation. Not only this, but insanity and phthisis may be substituted for each other in the same individual for an indefinite period; and two of the cases merit special attention as demonstrations of this truth.

One of them, a man with a bad heredity of cancer, phthisis, and insanity, had hip-joint disease in childhood, which left him permanently disabled. In young manhood he had phthisis pulmonalis which progressed into the later stages, when, opportunely, he went to California, and was apparently cured.

After a time he had several attacks of insanity, marked by delusions of fear and suspicion, which finally settled into chronic disease, and he is now in a state of partial dementia, still maintaining in a milder way his characteristic ideas.

The other, now a middle-aged woman, who had a phthisical father, was attacked when young by pulmonary consumption, with hemoptysis, from which she appeared to recover. In the course of time she became a nervous invalid, and is now a confirmed hypochondriac.

There is now no appearance of lung disease in either case ; but should this occur, a conspicuous modification of the brain symptoms may be almost confidently expected.

Another point worthy of mention, though perhaps unimportant in view of the small number of cases under observation, is the great preponderance of the maternal over the paternal agency in transmitting the phthisical disposition to the offspring : twenty patients having had phthisical mothers, while only six had fathers affected in like manner.

I observe, further, that four of the insane women have developed and died of phthisis, and two other cases are now afflicted with that disease. Of the already fatal cases, two had insane fathers, one a phthisical father, and one an insane brother. Of the two who still linger one had an intemperate father and an insane mother, and was originally defective ; the other had an insane father and an insane paternal uncle and aunt.

May it not be that the active disease principle is translated, for a time, from the lungs to the brain or its coverings ; or, that the blood is the blameworthy agent, impaired in quality as it must be in advanced disease, from lack of free aëration and from contact with inflammatory products ; or, may not these products themselves, finding their way into the venous currents, set up secondary changes in the brain ; or, is the peripheral irritation in the diseased lungs capable of being transformed into vasomotor

disturbance in the nervous centres, manifesting itself by perverted brain function ?

It is plain that ancestral phthisis constitutes an imperfection which inclines to assert itself in those who come after, but that it does not invariably reappear in its own, but frequently in some kindred form ; the disease, from conditions not yet understood, being cast in a new mould in its descent from parent to child. This change is wont to assume various shapes, being modified, no doubt, by individual environment, by a new strain of blood coming through one branch of the parental stock, and by numberless constitutional states, unknown and unknowable.

It is not phthisis in the abstract which comes by inheritance. It is that union of vicious qualities which go to make a susceptible constitution, a constitution predisposed, and we might almost say predestined, to disease.

Such a constitution is likely to be attacked prematurely, is unarmed, makes feeble resistance, and yields quickly ; whether the blow falls upon the lungs, the digestive system, or the brain. The disease germ is vigilant, aggressive, and only awaits the befriending conditions.—*Alienist and Neurologist*, April 1, 1886.

Unsettled Problems About Pneumonia.—In favor of the view that pneumonia is neither more nor less than "inflammation of the lungs," we have the constancy of the local condition, the general belief that the disease frequently follows exposure, and the absence of decisive proof of its contagious character. Against this theory may be urged the facts that the local condition and the systematic disturbance are very loosely related, the latter often preceding the former, the former usually outlasting the latter ; that the etiology of "chill" is often open to grave suspicion ; and, most important of all, that pneumonia undoubtedly occurs at times as a well-defined and destructive epidemic. Obviously the points that make against the "local inflammation" theory are *pro tanto* in favor of the specific character of the disease. To these may be added the fact that pneumonia pursues a fairly uniform course, with a well-marked rise of temperature, and a clearly defined crisis. The frequency of hepatic disturbance and the presence of the micrococcus must also be borne in mind in this connection. Some authorities further urge that the frequent presence of herpes

labialis is the analogue of a specific cutaneous eruption. We think the balance of evidence is strongly against the theory which professes to explain the disease as simply a local inflammation.

The evidence of the contagious nature of pneumonia is still scanty. It is beyond question that the sporadic disease is very rarely communicated, and, we believe, the vast majority of practitioners enforce neither isolation nor disinfection; yet, occasionally a case of apparent infection comes under observation. Such isolated cases would probably attract little attention, were it not for the phenomena of epidemic pneumonia. It is unquestionable that such epidemics occur, and are often extremely destructive. Their occurrence is sometimes vaguely explained as due to a "pneumonic" influence in the air; but, if this means any thing, it points to the existence of some specific contagion. How are we to draw the line between epidemic pneumonia which appears to be infective, and sporadic pneumonia which is almost universally regarded as non-infective? It is barely possible that the two diseases are really distinct, but no attempt has hitherto been made to distinguish them.

As illustrative of the problems presented by the phenomena of pneumonia, we may mention the following instance, brought forward by a speaker at a recent discussion in one of our provincial medical societies. A child was under treatment for pneumonia, when two other children in the same house were seized with the same disease. At first sight, the evidence of contagion seemed strong; but closer inquiry elicited the fact that the two children in question had been put to sleep in a disused room, and that the window had been accidentally left open all night. Here, argued the speaker, is an apparent case of infection clearly explained by an obvious source of chill. In reply to this, it was powerfully urged by a subsequent speaker that, on the broad principle of probabilities, the chance of two children (in a family where a third child was already suffering from pneumonia) becoming affected by the disease in consequence of exposure to cold, would be almost infinitesimal. The probability that one at least would take a common catarrh, bronchitis, rheumatism, or other usual consequence of exposure, would be extremely strong.—Editorial, *Brit. Med. Four.*, May 1, 1886.

Kempf (E. J.) on Infectious Pneumonia.—April 12, 1884, I was called to Master Philip S—, a farmer's lad, eighteen years of age, of a stout constitution, complaining of great pain in his right side, difficulty of breathing, cough, and fever. His pulse was 120, temperature 105° Fahr., tongue coated whitish, with a red streak in the centre; headache, and a feeling of tiredness in the limbs. The expectorations were tinged with blood. The bowels were constipated, the urine high-colored, the skin hot and dry. The patient was restless and delirious at times; at every movement of his body he cried out on account of the pain in his side.

On percussion I found dulness over the whole right lung, flatness over the lower lobe (a circumscribed pleuritis), and dulness over the lower lobe of the left lung. Auscultation gave me crepitant râles and bronchial breathing over the right lung, showing the commencement of hepatization; the left lung seemed only to be congested, and so to speak over-worked.

I pronounced the case one of pneumonia, and a rather severe attack. The patient was given large doses of opium, quinine, and tincture aconite; counter-irritation to the chest, and inhalation of steam vapor carbolized. After getting through with the case I was requested by the father of the patient to look at a man servant, who had been sick in bed some two weeks. I found a somewhat debilitated, oldish-looking man, who, too, was suffering from pneumonia. He was in the third stage, spitting up large quantities of prune-juice-colored sputa, and breathing about thirty times to the minute. His nose bled almost continually; he had no appetite and was very weak. Mucous râles mixed with subcrepitant were found over the lower two lobes of the right lung. I ordered large doses of muriate tincture of iron, tonic doses of quinine, and plenty of stimulants, also nourishing diet. The next day I found both of my patients doing somewhat better. But in the same bed with the young lad lay his mother, also sick, in the first stage of pneumonia. I also prescribed for her.

On the following day I found the father of the house and his only other child, a young man, also in bed, and with pneumonia in a very severe form. The whole family had therefore been attacked with the disease in the short space of four days. I got a nurse to tend to the family, assuring

her that she would not be liable to be attacked with the disease, because it would be restricted to those who had for some time lived on the place.

I examined the premises. The dwelling lay on a hill, which was well drained. No cesspools or stagnant water could be found. The cellar was dry. However, the house, the cellar, the farm-yard, and the family were extremely filthy and neglected. The farmer was well-to-do and in good circumstances; neither were the members of the family lazy, but they seemed naturally dirty and negligent in regard to personal cleanliness. The man-servant had been a tramp, but had worked for the family for more than a year. He had been sickly almost all his life, due to his roving habits.

I treated the five cases with large doses of muriate tincture of iron, quinine, and good whiskey. These three remedies I instructed the nurse to give almost ad libitum. The five patients took over one hundred grains of quinine, four ounces of muriate tincture of iron, largely diluted, and a half gallon of French brandy every twenty-four hours. The premises were cleaned up and whitewashed. Carbolic acid was largely used. The patients made a good recovery, convalescence being in all the cases somewhat protracted.

The severity of the disease, the sudden attack upon the members of the family after the servant had been sick for some time, and the restriction of the malady to members of the family, as well as the good results from a supporting treatment, induced me to report the cases.—*Medical Herald*, June, 1886.

Bruce (Wm.) on Contagious Pneumonia.¹—It may be taken as quite settled that epidemics of pneumonia, of an infectious character, do occur at rare intervals; the evidence being complete, not only on the side of the patients' histories occurring in groups, with definite connections locally, but also from the proof of active organisms, with well-defined characters, having been found, when properly searched for and examined. At one stage of the disease they are numerous and active, and at a later stage either inactive, or not to be found at all.

With regard to the natural history of contagious pneumonia, I would draw attention to the almost constant presence of

pleurisy as a concomitant of pneumonia; indeed, it was often the first and most striking symptom. I think I have seen a run of pleurisy cases before, and may have missed the pneumonia.

As to treatment, one case was bled from the arm. This I have often previously done in pneumonia, and, twenty-five years ago, it was my common practice. The girl was, that day, in the gravest danger, with respirations over 80 per minute and a running pulse. But I think the tide was turned before she was bled. Certainly the bleeding did no harm, and gave relief, as it usually does. Poultices, continued for a reasonable time, say, two or three days, followed by firm strapping, mild expectorants, regulated nourishment, and good nursing, with plenty of fresh warm but not hot air, are, to my mind, the essentials of treatment in contagious pneumonia. The healthy and strong recover; the very old, and especially the dissipated, die off quickly. And this will continue to be the result in such patients, in spite of all treatment.

[Four of the cases recorded by Bruce occurred within a radius of a quarter of a mile. One, a domestic, came down with the disease six days after her mistress.—ED.]—*Br. Med. Jour.*, May 15, 1886.

Chadwick (C. M.) on Embolus of the Basilar Artery.—The patient, a collier, aged twenty-one, was quite well and at work till two days before the attack, when he was said to have complained of pain at the back of the head. He took a strong purge of senna, salts, and liquorice. On the following day he got up; he appeared much better and his appetite was good. Towards evening his wife went out for a few minutes, and when she came back he was "all of a heap" in the arm-chair, and could neither speak nor walk.

When seen the patient was lying on his back in bed. The skin was covered with a copious sour-smelling perspiration; the eyes were semi-closed, and the pupils (partially dilated) reacted well to light. The deep reflexes were increased, the superficial well marked. There was well-marked ankle-clonus. The right arm was semi-flexed over the chest; the legs and left arm were extended. The temperature was 100.2°; pulse, 98; respiration, 20. The patient was continually uttering a wailing sound, tears running down his cheeks; and the facial muscles were con-

¹ See *Br. Med. Jour.*, Aug. 11, 1883.

torted as in ordinary crying. Any irritation, such as pricking, or twisting the hair about the temple, would produce this at once; and, in the latter case, the head was turned towards the side where this was done; the facial muscles of the same side were contorted. The mouth could not be opened; the tongue was motionless; the lips and mouth were covered with sordes. Any attempt to allow fluids to run down was followed by coughing and choking.

The breathing became more labored, the pulse more rapid and feeble, and he died "quite quietly" fifty-six hours after the attack.

Post-mortem examination conducted eight hours after death. All the organs were found to be healthy. The heart was not enlarged; the valves were entirely free from vegetations; the left ventricle was contracted. The veins in the meninges were congested, and at the anterior extremity of the basilar artery was a small rounded clot, increasing its calibre at this point to the size of a small pea, and plainly visible before opening the vessel. On opening the vessel a round clot, black internally and colorless externally, was seen.

The *post-mortem* appearance, the age of the patient, and the sudden onset, would lead to the determination that this was a case of embolism; while the reported pain in the back of the head, and the absence of signs in the heart indicating embolus, would lead to the supposition that thrombus was the cause of the occlusion. Had the occlusion occurred at the proximal instead of the distal extremity of the vessel, death would have been either immediate, or much more rapid, from asphyxia.—*Br. Med. Jour.*, Feb. 27, 1886.

Heffner (C. W.) on a Large Liver.

—A man, thirty-nine years old; about Feb. 1, 1885, began to have slight uneasiness, after meals, in the stomach, also a feeling as if "bloated"; no pain of any sort, and working all the time at driving wells. This "dyspepsia," as he called it, continued to trouble him more or less at times until about the 5th of August, 1885, when he said he noticed an enlargement at the "pit of his stomach." Previous to this time, however, his bowels were constipated. Sunday morning, Aug. 30th, he noticed for the first time that his feet were slightly swollen. He had noticed for three or four days previous to this that his breath was shorter, but thought nothing of it. Tuesday

night (Sept. 7th), was much more distressed than usual. Enlargement in the region of the liver had increased very rapidly. Wednesday found him very much worse; breathing rapid, pain not so bad until evening, when the suffering was considerable. Thursday morning found him very much worse, pulse 120, respiration 60, shallow and painful; suffering intense. Friday morning, at 8 A.M., I saw the patient. Found pulse 160 to 200, irregular and intermittent; temperature slightly below normal; respirations 80 per minute, actually panting. Hypochondriac region very much distended; pain almost intolerable.

Post-mortem revealed every thing normal, save the liver, which was very much enlarged, weighing 19 pounds. The surface was smooth, and perfectly intact. There was no part of it broken down, no hard nodules, but very heavily pigmented.—*Med. Age*, Feb. 25, 1886.

SURGERY.

Demons on Resection of a Part of a Lung and Extirpation of a Kidney in the Same Subject.

—A man of forty-nine was stabbed in the left side between the ninth and tenth ribs. A portion of lung one half the size of the fist protruded from the wound and the urine was bloody from the start. Peritonitis set in with much tumefaction about the wound. A phlegmonous inflammation set in about the wound, and the hernial protrusion of lung beginning to have a gangrenous look, it was removed by a wire *écraseur* and thermocautery the eighth day after the accident. Discharge of a liquid containing urine continuing, the left kidney was removed twenty-seven days after the accident. The patient made a good recovery.—*L'Union Médicale*, June 3, 1886.

Brookhouse (J. O.) on Pneumonia Followed by Abscess of Lung, Treated by Tapping and Drainage; Death.

—J. L—, aged thirty-six, laborer, was admitted on Feb. 11, 1886. About three months before admission into the Nottingham General Hospital he was attacked with shivering and pain in the left side, cough, and shortness of breath. He was laid up in bed for three weeks, and spat up reddish sputum "like blood." He has never been well since, but made a feeble recovery, and

tried to work, but could not. The pain in the side returned, with cough and dyspnoea. Six weeks before admission he noticed that the sputum smelt badly.

On admission, the patient complained of cough and shortness of breath. The cough came on in violent paroxysms, and he expectorated a dark-colored purulent fluid, having a horrible and indescribable fetor, so as to pervade not only the ward in which he lay but also the neighboring parts of the hospital. Physical examination of the chest revealed a large cavity at the base of the left lung, with liquid contents. The upper lobe was free from disease. Treatment in the first instance consisted in the use of terebene as an inhalant, and the oil of sandal-wood internally. No relief or improvement, however, in any way resulted from these remedies, nor was the fetor in any degree lessened. It was decided, therefore, to tap and drain the lung cavity, and the operation was performed, at 8 P.M., on Feb. 19th, by Mr. A. R. Anderson, by thrusting a large trocar between the seventh and eighth ribs, about an inch to the inner side of the inferior angle of the scapula. Violent explosion of air followed the withdrawal of the trocar with about three drachms of horribly fetid pus. A large rubber drainage-tube was passed through the cannula into the lung, and three ounces 1 in 80 carbolic lotion injected with a syringe. Considerable coughing followed, and a large quantity of offensive purulent fluid was immediately brought up, but no fluid returned through the tube. The tube was fastened to the skin by a horsehair stitch, and cotton-wool with bandage applied round the chest. There was little discharge at any time from the drainage-tube; most of the pus secreted and the Condly fluid injected was returned by the mouth. On autopsy a cavity the size of a breakfast-cup occupied the whole of the base of the left lung; the wall was smooth and the cavity contained no pus. The trocar had penetrated it a little below the centre. Although the case resulted fatally, it may be observed, whilst no untoward symptom occurred from the operative interference, the man experienced marked and early relief from the cleansing and disinfection of the putrid lung cavity. It is true, cough and dyspnoea were both greatly increased on each occasion during the time the washing-out was being done, but the distress was not continued, and a comparatively

long period of quiet followed. Again, the risks of sepsis were immediately greatly diminished, and the patient rendered less offensive to himself and others.—*Lancet*, June 12, 1886.

Forrest (W. E.) on Intussusception in Children.—The author states in a few words the course he would recommend in *all cases of intussusception in children*.

"A pressure of six pounds to the square inch having failed to reduce the tumor after a lengthened trial, I should cautiously raise the pressure to seven and eight pounds, and even nine pounds to the square inch, depending on the acuteness of the attack and the length of time the invagination had continued. *This* having failed, what course should then be followed?

If the child be under two years of age, open the abdomen at once and resect the intestine. The child will probably die; but, if left to nature, the case is absolutely hopeless.

If the child be between two and five years of age, and injections have failed, the chances of cure by sloughing or from laparotomy are about equal, and the surgeon will be justified in following either course. Remember that the invagination probably cannot be reduced even by traction, and the principal object in opening the abdomen is to resect the intestine, or to perform enterotomy.

If, however, the child be *over five years* of age, and the tumor has resisted a pressure of eight or nine or ten pounds to the square inch without being reduced, we must conclude that it is irreducible.

Now, according to statistics given above, the operation of laparotomy in these cases shows a greater death-rate than the cure by sloughing, the "spontaneous cure"; therefore, nature's operation, nearly hopeless as it is, should be preferred to laparotomy.

The *fountain syringe* is the only one that can be used in these cases with accuracy, and therefore it is the only one that should be employed. By it the amount of force used can be accurately measured, *as every two and one half feet in height of the reservoir above the point of delivery represents about one pound pressure on every square inch of the intestine below the point of obstruction.*"

As to the penetrating power of the injection and the amount of pressure the gut will stand, he says:

a. That "position and manipulation, in

some cases at least, aid in forcing an injection through the ileo-cæcal valve.

b. That in most cases, not in all, the valve will give way so as to permit of the passage of an injection before a rupture of the colon would take place.

c. That the valve is not the only obstacle to the passage of liquids or gas from the anus to the mouth, but that friction in the small intestine is an important factor.

d. That if an injection be given with force sufficient to cause rupture of the gut, the rupture will occur in the colon.

e. Injections cannot be relied upon to overcome obstructions in the small intestine.

f. That the colon, both in the child and in the adult, bears a surprising amount of pressure without rupture, a *force of eight or nine pounds in the infant, to twelve or fifteen pounds in the adult.*—*Am. Four. Obstetrics*, July, 1886.

Brain Surgery.—A man was recently admitted into the National Hospital for the Paralyzed and Epileptic (Queen Square), suffering from a severe form of epilepsy consequent upon an injury to the head which had involved the brain. About three weeks ago, Mr. Victor Horsley, who is assistant-surgeon to the hospital, trephined in the neighborhood of the scar, cleared away the injured bone, and excised the scar in the brain. In order to remove the whole of the scar tissue it was necessary to excise from the upper end of the fissure of Rolando a mass of mixed cicatricial and brain tissue measuring about an inch and a half long, an inch deep, and three quarters of an inch broad. A drainage-tube was introduced at the operation, but removed on the following day; a little serum had to be let out from the cavity of the wound on the fifth day, but the wound was practically healed within a week, and all dressings were removed on the tenth day. The patient never had a bad symptom, but it is as yet too early to form any opinion as to the prognosis with regard to epilepsy, though when inquiry was made we were informed that he had had no fit since the operation. It is interesting, in face of the reiterated misstatements of a certain knot of agitators, to learn that the operator in this most successful case,—successful, that is, so far as surgery can make it—was guided not by the generally prevailing doctrines with regard to the treatment of wounds, but by principles established by

experiments on animals.—*Brit. Med. Jour.*, June 19, 1886.

Cochran (J. P.) on Persian Methods for Radical Cure of Hernia.—The actual cautery is quite frequently used for the radical cure of hernia. The intestine being reduced, the borders of the external abdominal ring are traced with ink, as a guide in the application of the hot iron. A thick ring of dough and somewhat larger in diameter is then placed around the part to be cauterized, to protect the adjacent tissues. The instrument used consists of a rough iron ring, one fourth of an inch in breadth, and sufficiently large in diameter to include about one eighth of an inch of the borders of the abdominal ring. It has an upright piece surrounded by wood for the handle, or it may be a solid disc, or else a ring with cross-pins in it. The patient is now made "dead drunk" with arrack; or else, and especially if it be a child, is held perfectly still by a number of strong assistants. The iron is brought to a dull-red heat, and with all the neighbors, men, women, and children, who can crowd into the room where the struggling patient lies on the floor—the operation begins. The surgeon holds the instrument an inch above or over the part, and as the surface is scorched and the iron has cooled somewhat, it is placed within the ring of dough and directly upon the breach in the abdominal walls. After it ceases to burn the flesh it is again heated and the operation is repeated.

The after-treatment consists in healing the ugly burn gradually. It is thought necessary that the wound heal slowly in order that the cicatrix be large, deep, and firm. To this end an ointment composed of 10-20 ingredients is employed, or else split peas are laid over the surface for ten days, after which time the sore is allowed to dry up as quickly as possible. For the first three days the patient is allowed to walk, but after that and until the cicatrix is firm, he is compelled to lie on his back. No attempt further than position and the contracting cicatrix is made to retain the intestine in its place during the healing process, except in children who can't always be kept on their backs. Infants are always bound on their backs to their cradles in Persia, so that after being operated on they are kept quiet in the usual way.

As will be seen, the idea is to obtain so firm a contraction of the abdominal ring

and so firm a pad over it (the cicatrix) that the hernia will be kept from protruding.—*Med. Press of West. N. Y.*, July, 1886.

Some Recent Cases of Nephrotomy and Nephrectomy.—Stone (I. S.) on Nephrotomy for Pyelitis.—H. J. æt. thirty-two, farmer, consulted me in August, 1885, giving the following history: For four years he had discharged mucus or pus with his urine. Micturition had been frequent, and during the past two years he had been obliged to evacuate his bladder every half hour or hour. Some pain had been experienced in the lumbar region—never acute, however—and early in the disease it had been accompanied by hæmaturia. The urine on standing a short time threw down a copious deposit of pus, fully 20 per cent. of its volume; specific gravity, 1,020; albumen present in small quantity after careful filtration, though its presence in such cases is negative. When examined microscopically it was found literally swarming with bacteria. No tube-casts were present. In appearance the patient was much emaciated, and suggested phthisis, or similar wasting disease.

A diagnosis of pyelitis with contracted bladder was made at this time, but as the patient was unwilling to undergo operative interference, a general tonic plan of treatment was instituted.

Improvement followed at first, and enabled the patient to supervise his business affairs for a few months. His health began failing in November, and I was called to see him again. At this time a tumor was discovered in the left lumbar region, causing pain on pressure and giving obscure fluctuation. On December 23d, the patient being etherized, an incision was made beginning at a point half an inch below the last rib, three inches from the spine, extending downward and slightly forward for three inches. The various muscles were easily recognized, and only one vessel required a ligature. No hemorrhage followed section of the kidney, owing to its extreme degeneration. About two ounces of pus escaped from a cavity nearly in the centre of the organ. After thoroughly irrigating the abscess cavity and wound with bichloride solution 1:1000, a drainage-tube was inserted, and the wound carefully closed. An iodoform dressing was applied, and the patient put to bed. A catheter was introduced into the bladder, giving exit to an ounce of bloody urine.

The patient reacted well from the operation, and had a good night, requiring only a small quantity of morphia—gr. $\frac{1}{4}$. Temporary improvement followed. His pulse formerly 115–140, now 75–85; temperature formerly 102°–103°, now 99°–101°; appetite much improved. The wound discharged urine for a week, after which none could be discovered. The drainage-tube was removed in ten days, after which pus continued to flow from the wound, and a probe could be easily passed into the kidney. His improvement continued for three weeks, during which time he sat in his chair, and walked from bed to chair at will. The amount of purulent discharge was greatly diminished; for ten days none was seen in the urine. In about three weeks, however, the patient grew worse, and was unable to take food in sufficient quantities. To this were added signs of tubercular disease of the left lung, which carried off the patient on February 3, 1886, forty-three days after operation.

Autopsy four hours after death.

The peritoneum was undergoing septic inflammation on the left side, caused by escape of a small amount of pus from the abscess in and around the kidney. Right kidney enlarged fully five inches in length, apparently healthy. Left kidney covered by densely thickened and cicatricial peritoneum. The descending colon firmly adherent to the sac of a large abscess, in the centre of which was the kidney in a state of advanced degeneration. The opening made at the time of the operation was patent, and the exit for pus posteriorly was direct and complete. The left ureter was correspondingly dilated for three inches of its length, and contained one-half ounce of pus. The bladder was so much contracted as to be recognizable only by its location after a sound had been passed through the urethra into it. Its capacity was not more than an ounce.—*Medical News*, June 26, 1886.

Stone and Croft on Perinephritic Abscess due to Renal Calculus; Nephrolithotomy; Cure.—The patient, a woman of thirty-eight, has had trouble, ever since she was a child, in passing urine, with pain in the loins, but the symptoms did not thoroughly manifest themselves until 1871. Her present trouble commenced at Christmas, 1884, when she had a slight miscarriage, a feeling of something in the bladder when walking, pain in the region of

the right kidney, with pain and difficulty in passing her urine, which has been thick and very high-colored. No history of hæmaturia.

This pain begins in the right lumbar region and passes through the groin to the right labium; it also passes down the front of the right leg as far as half-way down the shin. There is always some pain present, but she is liable to exacerbations of a cutting character. The right lumbar region is fuller than the left, and a soft round swelling in the region of the kidney can be indistinctly felt; in this position and in the right hypochondrium there is great tenderness. The rest of the abdomen appears normal. No enlargement of liver or spleen. Heart and lungs normal; pulse 80; tongue clean; appetite fair; bowels regular; skin normal. Temperature 90°. Urine acid; only a small trace of albumen; under the microscope there is a large quantity of pus cells, but no blood; deposits of urates and phosphates; sp. gr. 1030.

Sept. 21st.—Feels better for the rest, but does not sleep well. Complains of nausea, and is thirsty. Passes urine about three times in the day; complains of scalding; there is some difficulty in micturition, but when it has once commenced there is no further difficulty. Evening temperature has varied from 90.2° to 100.4°.

Several times there were attacks of pain in the right groin, and it was noticed that the swelling continued to increase until Sept. 26th, when fluctuation was found above the crest of the ilium, about two inches behind the anterior superior spine. The patient was placed under chloroform, and Mr. Battle opened the abscess at the point at which it was presenting. A large quantity of thick creamy pus escaped from the incision, and the finger when passed into the abscess cavity could be moved freely in all directions without touching the wall of the cavity, except on its outer aspect. The discharge continued free, though lessening in quantity, and the temperature normal, but there was little improvement in the general symptoms, and she was losing flesh.

On Nov. 21st Mr. Croft operated. The patient having been placed under ether, the opening was enlarged upwards and the sinus examined. It extended downwards towards Poupart's ligament, and upwards towards the kidney; the muscles and fasciæ over it, which were much matted, were

incised upwards, and another incision made at right angles to this. When the kidney had been bared fluctuation was felt in it, and the insertion of an exploratory needle gave exit to some thick pus. A longitudinal incision was made down to the pelvis of the kidney, in which a calculus of somewhat dumb-bell shape was found and extracted in two pieces. The wound was then thoroughly syringed with chloride of zinc, the kidney packed with iodoform gauze, and a large drainage-tube passed to the bottom of the sinus. Silk sutures were inserted, and iodoform, salicylic wool, and a pinewood wool-bag applied. This dressing was to be changed every four hours. After the operation the temperature was 95°, gradually rising to normal at the end of twelve hours, when the pulse was 100, weak and compressible. Vomiting lasted until the next day. She slept after the administration of morphia. Nutrient enemata were given every two hours. The patient speedily convalesced. — *Lancet*, March 27, 1886.

Lange (F.). Nephrotomy on both Sides; on one Side for Pyonephrosis and Calculus, on the other for Acute Obstruction of the Ureter.—A male thirty-two years of age said that he had suffered from urinary trouble ever since his twelfth year, and that he had had pus in his urine all the time since, which had become most abundant during the preceding three or four weeks, while at the same time pain and frequency of urinating had become intolerable. There was a round, resistant, immovable tumor in the region of the left kidney, of about the size of the head of a new-born child; the right kidney could likewise be distinctly felt, hence was abnormally dislocated downward, but did not seem to be enlarged to any considerable degree. The pain was located almost exclusively in the left side and the pendulous penis. The urine contained a large quantity of pus; microscopically, nothing but pus-cells—no blood, no cylinders. Simple pyonephrosis on the left side was diagnosed.

Simple nephrotomy on the left side was performed on the 2d of October, a lumbar longitudinal incision being made. In the region of the perinephritic fat a hard, resistant, fibrous mass was encountered, the wall of the pyonephrotic sac. After having cautiously penetrated through it, the operator struck stone, and removed, after a

tedious digging of about an hour and a half, quite a considerable quantity of irregular-shaped calculi, which in all directions were scattered apparently all through the recesses of the calices. They were mostly, with their irregular edges, imbedded so deep that their removal was impossible without some bleeding and injury to the tissues.

Eight weeks later the patient began to complain of pain in the abdomen. His bowels became obstinately constipated, and a few days later the urine was remarkably scanty. On the 28th he was reported to be very sick. Being prevented from seeing him, on account of other engagements, the speaker, in the absence of the family physician, asked another colleague to see him, who sent him word that the man had general peritonitis. He had also tried to empty his bladder, because for almost twenty-four hours no urine had been passed, but had only withdrawn a few drops.

When the writer saw the patient he found him with a tympanitic and very painful abdomen. The principal pain, however, was located in the right side, while the first operation had been done on the left. His pulse was weak, and there was dyspnoea with beginning collapse; there was not a drop of urine in the bladder. He diagnosed occlusion of the right ureter, and proceeded to operate at once, after the patient had been transferred to his institution. First exploring the left side, because of the idea that some inflammatory process might have proceeded across to the other side from the kidney originally operated upon, he again found stones, and, after some searching, removed a considerable number. He then made a lumbar incision on the right side, having placed the patient on his belly with a slight inclination toward the side of the operation, as he had before recommended for exploratory incision of the pelvis of the kidney. He found all the connective tissue under the quadratus lumborum infiltrated with watery fluid, so that it looked like urinary infiltration; he removed the fat from the posterior aspect of the kidney, and discovered in its substance, near the insertion of the pelvis, an abscess, which seemed about to perforate. After opening it, he passed his finger without resistance into the pelvis, and, on withdrawing it, a great quantity of bloody urine escaped. The pelvis was so

much dilated that he was very well able to pass his finger into the first part of the ureter. Lower down, on introducing a slender, long thin-bladed dressing-forceps, he met with a resistance which did not have the feeling of a stone. He then, by means of a large syringe, injected warm water in the direction of the ureter, when, after a few injections, this mass emerged—a whitish gray plug, of about the size of the terminal phalanx of the little finger, somewhat flattened and conical, resistant but brittle, and apparently consisting of an old fibrinous clot in which numerous gravel-like concretions were imbedded. He then was able to pass a middle-sized bougie directly down into the bladder without any resistance. There was considerable venous hemorrhage, which, however, was easily checked with an iodoform-gauze tampon after a middle-sized drainage-tube had been inserted into the pelvis of the kidneys.

On the first day after the operation three quarts of cloudy, slightly bloody urine had been discharged. Altogether almost all the urine seemed to pass by the normal channel, and about one week after the operation the tube was removed. Several pieces of necrotic tissue were passed at times with the urine, and in some of them, though they were entirely disintegrated, the outlines of glomeruli and urinary canaliculi could be detected. The patient's general condition had since remarkably improved, and, though he had no sanguine hopes of his complete recovery, he thought that the last operation had served him from imminent danger. Four weeks had passed since the operation.—*N. Y. Med. Jour.*, Jan. 23, 1886.

Sadler (M. T.) on a Case of Suppurating Kidney; Nephrotomy and Drainage.—A male, aged twenty-two, consulted me for the first time on Jan. 18, 1885, on account of a pain in his right side. He had been ailing for about two years, and had felt more or less of the pain for about twelve months. Since November, 1884, he had lost weight and strength rather rapidly, but had not left his work. Sometimes the pain was very violent, striking up into his head and face in the form of neuralgia. There were also frequent night-sweats. The pulse was usually 110 to 120, and the temperature, even in the morning, over 100°. On examination, I found a tumor, which he had not noticed, in the right flank, rounded, ill-defined,

semi-fluctuating, extending from the liver down within the crest of the ilium, coming in front within two inches of the umbilicus, and passing backwards behind the dorsal muscles. The urine, on examination, proved to be albuminous, containing much pus; sp. gr. 1.014. At times the urine was for a short time clear and free from pus or albumen. There was no distinct phthisical family history. His father and one sister died of heart disease.

March 6th I cut down on the kidney by an incision four inches long one inch below and parallel with the last rib on the right side. On dividing the lumbar fascia about a pint of offensive, curdy pus escaped, and then the finger could be passed into a cavity roughly reniform in shape, occupying the position of the tumor, apparently about eight or nine inches from above downwards, but the lower end of which could not be reached. No calculus could be felt. The cavity was washed out with carbolic lotion, and a large drainage-tube inserted.

He broke down under the severe weather of February and March, 1886, and died from uræmia on March 19th.—*Lancet*, May 15, 1886.

Gardner (Wm.) on Nephrotomy and Nephrectomy.—A. McL., æt. 42, gaoler; abscess of kidney.

Jan. 21, 1884.—Admitted into the Adelaide Hospital. Five years ago he experienced a scalding sensation on passing urine, and this continued for about six months when it became so bad he was obliged to micturate every hour. For two years after this he had scalding, but not such frequent micturition. Two years and a half ago he noticed blood passed with the urine, and had, at intervals of about a month, colic, attended by vomiting and pain in the hypogastric region. This lasted about two months. Two months ago, pain set in in the right lumbar region. He had experienced no scalding for about twelve months.

There is apparent fulness of the right lumbar region, with dulness on percussion in front. No kidney margin is to be felt, and on manipulation he complains of pain in both lumbar regions, but especially the right.

February 29th.—Under ether and using the carbolic spray, an incision was made into the kidney, and one and a half pints of thin pus evacuated.

May 21st.—No pus in the urine, very little discharge from the sinus, and his general health is improving. Discharged.

At the end of April, 1885, he began to lose flesh, and on the 18th of May was readmitted. He has lost five pounds in weight during the last month. There is still a sinus in the loin, from which pus escapes, and a probe can be passed along it to the depth of three inches. The urine is acid, slightly turbid, and contains no albumen. The average daily amount for a week was 50 oz.

On incision and examination, I came to the conclusion that the kidney was so incorporated with the surrounding structures that it could not possibly be removed. A large drainage-tube was inserted and the wound closed with metallic sutures. The subsequent progress of the case was uniformly favorable.

October 3d.—Patient came to my consulting-rooms and besought me to do something for him to relieve his condition, as he felt himself sinking gradually.

October 6th.—I made an incision to the outer side of the right rectus (Langenbuch's) 4 inches long, and divided the tissues down to the peritoneum, which I carefully opened, and divided to the full extent of the external incision. I then gently passed my hand into the abdominal cavity and felt the right kidney considerably enlarged, but still movable, and therefore not, as I had imagined, incorporated with the surrounding tissues. Passing my hand cautiously across to the other side I examined the left kidney, and it felt to me about the usual size. I then removed the right kidney through the lumbar incision. The kidney was extremely brittle and dilated to a shell. A great deal of the kidney structure broke down under the finger, but by gently pulling I was enabled to get the pedicle so far out as to transfix with a double ligature and tie in two portions.

October 8th.—The patient died of uræmia and peritonitis. It appears to me that in every case in which after nephrotomy or nephro-lithotomy a discharging sinus remains in the loin, we should, after a reasonable time has elapsed, proceed to the further operation of nephrectomy, provided the daily excretion of urea gives a reasonable prospect of the second kidney being healthy. For the removal of all kidneys, except those which are enormously

enlarged by new growths, such as sarcoma, tuberculosis, etc., the lumbar operation undoubtedly offers the best chance of success. Resection of the twelfth rib gives freer access for the removal of the organ if at all enlarged, and cannot add materially to the risk of the operation.—*Australian Med. Jour.*, Nov. 15, 1885.

Park (R.) on Nephrectomy in a Patient Twenty-three Months Old.

—The case was that of a male child, born October 4, 1883, who appeared at birth to be perfectly healthy. During the following winter the nurse noticed an enlargement in the right side of the abdomen, and the attention of the attending physician was called to it. On July 31, 1885, the attention of the writer was called to the child, who appeared to be perfectly healthy. There was a history of steady enlargement of the growth. The bladder was examined with the sound, but no evidence of calculus found. The urine contained numerous crystals of triple phosphates; otherwise it was normal. Examination of the abdomen revealed a firm, resisting tumor, of about the size and shape of the foetal head at term, occupying the right half of the abdominal cavity. A portion of the fluid was removed and examined, with negative results. The diagnosis was fibrocystic tumor of the right kidney, probably of congenital origin. Five weeks afterward the tumor was found to have increased decidedly in size. September 15, 1885, an incision was made in the right linea semilunaris, and slight adhesions were found. The peritonæum covering the growth was incised, and the tumor shelled out without much difficulty. The pedicle was tied and dropped into the abdominal cavity. On the twelfth day the patient was removed to his home, and at the present time, seven months after the operation, he was perfectly well. The tumor proved to be a fibrocystic tumor of the right kidney, the cystic element predominating. Immediately after removal it weighed four pounds.—*N. Y. Med. Jour.*, May 15, 1886.

Lange (F.) on Nephrectomy for Pyonephrotic Kidney; Improvement.

—The patient, aged twenty-six, dated her disease from February, 1880, when, after a severe cold, bladder trouble set in, which was treated as cystitis. It became rather severe in the summer of the same year, during which time not infrequently a bloody discharge occurred with the urine,

often in large clots and with free admixture of mucus. Gradually the pain and discomfort became somewhat less without disappearing entirely. She married in September, 1882, and became very severely sick soon after that, suffering excruciating pain, until, after a protracted retention of urine, a piece of "flesh," as she said, as large as a small fist was extracted from the bladder by herself, after which an improvement of her general condition took place. Blood continued to pass with the urine, however, sometimes very freely. Eleven months after her marriage her first child was born. About twelve days later she began to suffer from severe pain in the lumbar region, which lasted for about three weeks, and was principally located, as she remembered, on the right side. Then followed a comparatively free interval until, about four months later, during the first months of her second pregnancy, similar pains set in, mostly in the right lumbar region, radiating toward the right knee. Often, when she tried to get up after such an attack of pain, she felt as if her legs were paralyzed, and as if she must raise them with her hands to put them into motion. Toward the end of her pregnancy she suffered again—less, but very severely a short time after the delivery, when an attack similar to that after the first one occurred, and was of several weeks' duration. All these last five years she seemed never to have had a normal action of her bladder, and never normal urine, but almost always an admixture of more or less blood, mucus, or pus. Under chloroform anæsthesia it was possible to palpate both kidneys. They seemed of about the normal size, but were located a little lower than normal. Examination of the bladder disclosed nothing. There was a moderate amount of sediment in the urine, which was sometimes pale, sometimes watery, and sometimes bloody. Microscopically, there were many epithelial cells from the bladder, pus, and red blood-corpuscles. The specific gravity varied between 1,011 and 1,021, the daily quantity being between 750 and 1,500 grammes. Once a piece of a granular cylinder was detected. There was very severe pain at intervals, located principally in the right lumbar region; also dysuria. The patient reported that exercise decidedly increased the pain and the amount of blood in the urine. The pain was quite intolerable at times. During the severe

attacks of pain, urine more nearly normal in quality was discharged. An exploratory lumbar incision was made on the 26th of November, with the patient in the prone posture. The ureter having been laid bare and opened, there was difficulty in finding its lumen, which seemed to be partly obliterated. A fine probe could be passed only to the distance of about an inch and a half. The pelvis of the kidney was hardly noticeable, seeming to have shrunk. The fatty tissue was intimately adherent, but the surface of the kidney was laid bare. The whole organ seemed to be cystic. Some of the cysts were punctured, and found to contain a watery fluid, while others contained flocculent pus. The whole organ, seeming degenerated and worthless, was removed. No bad symptoms occurred during or after the operation. After four weeks the patient was discharged, much relieved from pain and suffering, and somewhat improved constitutionally. The kidney removed, which at the time of operation had about the normal size and shape, showed scarcely any cortical substance, and consisted of a large number of cystic cavities with smooth walls, mostly filled with pus, and varying in size from that of a hazel-nut to that of a large walnut. Microscopically, the elements of the kidney were preserved in the remainder of the cortical substance.—*N. Y. Med. Jour.*, June, 23, 1886.

Bridson (C. K.) on a Case of Nephrectomy.—The patient, aged thirty-six, a few months ago began to suffer from pain in the right side of the abdomen; it was of a continuous character and never paroxysmal. At the same time it was noticed that her urine was turbid; there was no increased frequency in passing it, and there was no hypogastric pain; she was much annoyed by vomiting, headache, and fever.

In the right side of the abdomen was a tumor filling the lumbar region, and reaching to the median line; it had somewhat of the form and configuration of the kidney; it was dull on percussion, the dulness above being continuous with that of the liver; over the lower anterior and inner borders was a line of resonance.

Urine averaged twenty ounces daily; one half its volume was composed of pus; its specific gravity was 1.018; it was acid and albuminous, but contained no casts.

The diagnosis was pyelonephritis.

The lumbar region was made prominent

by the use of sand-bags; the usual transversely oblique incision was made below the lower border of the last rib, and there was not the slightest trouble in exposing the kidney, which was quite superficial. On opening its capsule, it felt solid and non-fluctuant; its posterior dimensions were such that, with the index and middle fingers insinuated between the capsule and the gland until the knuckles were in contact with the transverse processes of the vertebræ, it was found impossible to reach the hilum. It was at once determined to remove the organ through an incision in the abdominal walls, which was done.

The kidney removed by the operation was found to be the seat of multiple abscesses; most of these were of considerable dimensions; the largest would have contained an ordinary-sized lemon; they communicated one with another, and through their intercommunication opened by a small orifice into the dilated pelvis; the latter was occupied by an umbrella-shaped calculus weighing 125 grains, and measuring one inch and a quarter by one inch; the nucleus of this was a perfect oval, which had evidently lain transversely across the opening of the ureter, and the expanded portion was formed by accretions around this, forming an incomplete cup for the nucleus, the stem projecting into the ureter; there was a second small oval calculus, and a fragment in one of the abscesses.

The patient died seventy-eight hours after the operation with a high temperature and persistent vomiting.—*Med. News*, Jan. 30, 1886.

Edwards (T.) on Abscess of Kidney Treated by Frequent Tappings; Recovery.—A male of twenty-three complained of constant pain of a dull aching character in the lumbar region, which he had had for the last eighteen months.

On examination the patient was greatly emaciated, appearing as one in the last stage of phthisis. There was pain on pressure over the right kidney, also pain on fully extending the right leg. There appeared to me deep fluctuation midway between the last rib and the crest of the ilium. Hectic fever and rigors were present; the urine was scanty and high-colored, albuminous, but free from blood or pus; there was also profuse diarrhoea. I inserted obliquely upwards a trocar and cannula to its full length, midway between the last rib and the crest of the ilium and

two inches from the spine, and drew off a tumblerful of offensive pus resembling cream.

For the following two days the patient's condition improved, but soon afterwards all the bad symptoms returned. I again tapped, and drew off another half pint of pus. I repeated this operation five times, drawing off altogether three pints and a half of pus, the last drawn being terribly offensive. On each occasion the small wound made by the trocar healed in a day or two. The patient's condition after this greatly improved; the pain, fever, and rigors disappeared; he could walk, had a good appetite, and was rapidly gaining flesh. I gave quinine throughout, but now added tincture of iron and cod-liver oil. About three weeks after the last tapping the patient complained of an uncomfortable feeling in the old place, but no pain. I again tapped, and drew off three pints of clear amber-colored fluid resembling urine; this operation I repeated several times, but on each occasion less came away, until it disappeared. The patient has quite regained his health and strength, taking long walks daily. Urine normal.—*Lancet*, May 15, 1886.

DISEASES OF THE EYE.

Abadie on Subcutaneous Injections of Sublimate in Ocular Therapeutics.—The author thinks this treatment much shortens the duration of parenchymatous keratitis, and he employs the same measure in disseminated choroiditis and retino-choroiditis. He believes these lesions are often the remains of hereditary syphilis. The acuity of vision of these patients increases wonderfully after ten or twelve injections. The solution he employs is:

Bichloride of mercury . . .	1 part.
Chloride of sodium . . .	2 parts.
Distilled water . . .	100 "

He makes the injection very deep under the skin.

M. Vacher prefers injections of the cyanide of mercury as less irritating and more active. His formula is:

Cyanide of mercury . . .	1 part.
Chloride of sodium . . .	1 "
Distilled water . . .	100 parts.

M. Galezowski has long employed this

method, but considers inunctions as efficient.—*Rev. de Thérap.*, June 1, 1886.

Davier on the Treatment of Granular Conjunctivitis.—The author recommends pure chromic acid as a caustic in cases of trachoma, which resist copper sulphate, and as a more manageable remedy than jequirity. The application is not very painful, and produces only a slight slough. It has not such antiseptic powers as has the copper sulphate, hence applications of the latter salt should follow the cauterizations of the chromic acid.—*La France Méd.*, May 20, 1886.

Chibret on Permanent Collyria.—The usefulness of permanent anæsthesia and antiseptics after operations about the eye, is undoubted. To obtain this the author takes a thin piece of wadding of elliptical shape, and upon it spreads a salve of yellow wax and vaseline containing iodoform and cocaine. He then makes a roll of it and introduces it into the inferior conjunctival cul-de-sac. This application can be left in situ two or three days if the eye is bandaged. Anæsthesia often lasts twelve hours or more, and cocaine still remains in the pledget after forty-eight hours. That the iodoform is absorbed, is proven by the fact that it is present in the urine forty-eight hours after the application. The iodoform acts both as an anæsthetic and an antiseptic.—*La France Méd.*, May 20, 1886.

Trousseau (A.) on Chrysophanic Conjunctivitis.—For a long time dermatologists have used for psoriasis a dressing made as follows:

Chloroform . . .	90 parts.
Gutta-percha . . .	10 "
Chrysophanic acid . . .	10 "

In the night following the dressing the patient is awakened by sharp burning in the eyes. There is a pricking sensation and one of sand in the eyes. During the day the pain sensibly increases, blepharospasm, lachrymation, and a slight photophobia appear. The conjunctiva is congested, but there is no secretion, and the cornea is healthy. The acute stage lasts three or four days, and untreated, all the phenomena disappear in eight or ten days.

The best treatment seems to be warm compresses of a 4 % borax solution. The author is unable to decide whether the inflammation is excited by transportation of the irritant from the dressing to the eyes

by the fingers, or whether it is absorbed and thus reaches the conjunctiva, but he inclines to the latter supposition.—*Ann. de Dermat. et de Syph.*, May 25, 1886.

Chisolm (J. J.) on the Rational Method of Treating Cataract Patients to the Exclusion of Compresses, Bandages, and Dark Rooms.

—Since the 11th day of May, sixteen cataract-extractions have been performed at the Presbyterian Eye and Ear Charity Hospital, on patients in public wards and in private rooms. With all of these, the new method was adopted. The sole dressings to the eyes were pieces of diaphanous isinglass silk plaster, large enough to extend from brow to cheek, and from one canthus to the other. These pieces were soaked in water and then thoroughly adjusted to the lid surfaces. This one dressing usually suffices for the entire treatment. If the straps become detached at the edges, as they did in some instances, they were replaced by fresh ones.

These patients were all operated upon in the operating-room on the second floor of the hospital, and all under the anæsthetic influence of cocaine.

They walked to their rooms immediately after the operation, ascending to the third and fourth stories.

When put to bed, the only instruction to them was to leave the eye undisturbed.

No restrictions were put on their movements, nor as to diet.

One patient was found walking about on the second day. Several got out of bed on the third.

At no time were the rooms so dark that reading by others could not be enjoyed.

No water dressings were used.

The straps were finally removed on the fifth or sixth day.

All the patients bore the ordinary room light without photophobia or lachrymation, and without the protection of smoked glasses.

By the seventh or eighth days, patients were able to move about the house with eyes unprotected and with a degree of comfort unknown during the previous eight years' existence of the hospital, and to the 582 patients from whom cataracts have been extracted up to the 11th of May, 1886.

The revolution in the after-treatment of cataract and iridectomy patients in this hospital is complete. From this time

hence, all bandages, compresses, and dark rooms will be among the things of the past, to be remembered only by the discomforts which they occasioned.

From my month's experience I am forced to the conviction that the hyperæmia, photophobia, lachrymation and painful weakness of eyes after cataract-extraction, are largely, if not altogether, due to the methods of eye dressing in universal use, and are, therefore, induced by the treatment and not by the disease.

A patient applies for treatment with matured cataracts. He stands light perfectly well up to the moment of operation. While lying on the operating-table, with cataract extracted, with pupil doubly enlarged by the iridectomy, and with the strongest light in the face, he suffers no inconvenience and makes no complaint of its harshness. When the lids are closed, the amount of light straying through them into the eyes is about the same as that to which he was accustomed before the cataract was extracted. Which is the more reasonable mode of treatment—leave him in this natural condition, or at once plunge him into utter darkness by covering the eyes with bandages and compresses, and by putting him in a room so dark that even his attendants can not see to get about? When he emerges from this confinement at the end of eight or ten days, by the removal of the bandages, is it surprising that the eyes should weep, and that light should be painfully offensive? Try your good eyes without operation with the bandages, and see if they will not behave in a similar manner.

Then again as to bandaging. We do it, believing that the incised corneal wound requires support, which it undoubtedly does; but do we fulfil the indications by the methods we adopt? Heretofore I have thought so when I applied over each eye a square piece of soft wetted cloth, then a ball of raw elastic cotton which the supporting bandages would press equally on all parts of the wounded eyeball. Grant that this was all secured, and that the proper support was obtained when the patient leaves the operating-room, what is the condition when he gets into bed? His movements upon the pillow draw, necessarily, the bandage, unequally toward the side pressed by the head. No bandage, however elastic and however nicely adjusted, can keep up at all times, in the

varied positions, of the head, equable pressure on any one surface.

The comfort to the patient is immense. The comfort to the attendant incalculable. There is no longer the dreaded darkness to the patient, nor the gloomy room to the attendant. We hear of no more stumbling over furniture nor complaints from friends that their eyes have been made weak by the confinement. Then when the straps are removed and the eyes are opened, the surgeon sees for himself the good strong eye, instead of hearing from the darkness the complaint of the patient, that tears are streaming down his face from the little light which his over-bandaged eyes cannot now stand. From this point convalescence is rapid. In a very few days patients are ready for dismissal, and that without having used any protection spectacles. Still advise patients on leaving the hospital to use smoked glasses for the sunny street.

I have already had some to discard this advice as unnecessary. Two patients came for inspection to my office, four days after their dismissal from hospital, and two weeks after the cataract-extraction operation, walking through the bright streets without any protection whatever.

Of the sixteen cases of cataract-extraction treated by this new method, three of whom being very recently operated on are still with closed eyes under the adhesive straps, I have had the most gratifying results. Most of them have been brilliant illustrations of the efficacy of this simple treatment. In no case have I had the weeping eyes of a former experience, all of them standing the light well the day the adhesive strap was removed. It is a revolution complete in eye dressings, and experience has proved it to be a wise and very beneficial change, which must meet with universal acceptance, even if it does break up one of our long and most confirmed habits.

With cocaine as the local anæsthetic, and adhesive straps as the eye dressing, with light rooms in which friends can read for the entertainment of those operated upon, cataract patients will in the future have little to dread from pain or confinement.—*Am. Jour. Ophth.*, June, 1886.

Recent Contributions to Ocular Grafting.—In the April number of the *MEDICAL ANALECTIC*, p. 145, there appeared a free translation of the Report which Terrier made to the Surgical Society

of Paris on the above subject. The partial success attending the tentative operations by himself and others has stimulated experimentation on animals, which will do much to settle the expediency of repeating the operation on man. All that is hoped to be gained by the operation is a cosmetic effect superior to the average results of enucleation and the introduction of an artificial eye.

May (C. H.) on Enucleation with Transplantation and Reimplantation of Eyes.—The operation must be placed among the perfectly feasible ones. In five cases, comprising one reimplantation and four transplantations, the bandage was kept well in place throughout for twenty-one, twenty-eight, thirty-four, and thirty-six days respectively, and the condition of the transplanted organ at the end of these periods was very favorable; the eyeball was of good conformity, the cornea hazy but clearing, and the tension good. Any one of these eyes, just as they are at the time of writing, would be a great improvement upon many staphylomatous or atrophied eyeballs, or those the seat of dense white leucoma. Then, again, the artificial eye is a foreign body, and from time to time excites inflammation; it has to be renewed every two years, and is an item of expense, especially if an artistic match to the other eye is desired. In rabbits all colors of irides may be obtained (the writer has not yet met with a pale-blue one), brown, black, gray, dark-blue—here would be a sufficient assortment of colors to choose from in order to match the human eye.

In size the rabbit's eye is smaller than the adult human lobe; it varies from 18 to 23½ mm. in diameter. Were there any demand for rabbits' eyes, large-sized animals could be bred for this purpose.

The arrangement of muscles in the rabbit is identical with that of the human eye.

In no case was there any rise of temperature or any apparent interference with the general health, or the slightest implication of the sound eye. Hence, even though the operation fails, no injury will have been done, for even in all the unfavorable cases a stump remained at least as good as that resulting after ordinary enucleation, while in most of these cases the stump afforded a better rest for an artificial eye than would have been obtained in an ordinary enucleation.

The operations were done with strict antiseptic precautions.

The first seven cases were left unbandaged, and degeneration (sclerosis or sloughing) of the cornea was the invariable result. The next seven cases were bandaged, but the method was unequal to the task of preventing displacement or removal, from the incessant attempts of the animal to get off the dressings; the result was that the cornea degenerated (sclerosis or sloughing) soon after the bandage was removed, though it had remained in good condition while the dressings were well in place. In the remaining ten cases, the bandage was displaced in two cases and was removed, put on too tightly and had to be removed in two cases. Here, again, the cases progressed favorably until the bandage became displaced and had to be removed.

Throughout the experiments all unbandaged operated eyes were washed out thoroughly with the bichloride solution (1 to 10,000) twice a day, and this was also done when the dressings were removed prior to rebandaging.

In six cases the bandage stayed in place throughout, and the result was very favorable and satisfactory.

This proves that protection of the cornea from atmospheric contact is essential; when this was maintained, success was the result. The influence of the atmosphere is easily explained—the *cornea remained insensitive throughout in all cases*, the ciliary nerve-supply having been cut off; foreign bodies in the atmosphere settling upon the cornea excite no sensation, and remaining, without being washed off by the tears and movements of the lids, produce inflammation and degeneration of the cornea. This was well illustrated in the cases in which no bandage was applied; in all of these cases, the portion of the cornea which was first to slough—in fact, the only portion which sloughed at all—was a central elliptical portion corresponding to the part most exposed.

By watching closely, the writer found that in sleeping the animals did not close the lids completely on the affected side, and the central elliptical portion corresponded to the space left between their margins. In other cases, in which the bandage had become displaced, the sloughy portion of the cornea corresponded to the exposed portion; in one case, in which the

stitches holding the lids together had been rather loosely applied, a linear area of degeneration of the cornea showed where it had been exposed. Thus, the effect of atmospheric traumatism upon the insensitive cornea is clearly and indisputably established. The cornea must be protected until there is a return of sensibility. The parts supplied by direct branches from the fifth nerve, such as the nares, lids, and nasal mucous membrane, were not affected in any of the cases.

Under the microscope, the degenerated corneæ were found to be infiltrated with small, round, and polygonal, and larger fusiform cells, chiefly between the corneal fibres, and the latter were more opaque than normal; the epithelium of the surface was wanting in some places, and at others was markedly increased in numbers, causing a heaping up of cells.

The rapidity with which the ocular muscles attached themselves to the transplanted eyeball was wonderful; it occurred as early as the third day—in most cases by the seventh day, in a few only as late as the tenth day. This muscular connection was ascertained by dissection, and by associated movements transmitted from the other eye—a piece of carrot or some bright object was passed in varying directions in front of the sound eye, and the transplanted organ watched for associated motion; it was also ascertained (when the animal paid no attention to these objects) by moving the eyeball in varying directions with forceps, and noting the amount of resistance. Under the microscope the muscles showed very little fatty degeneration.

The connective-tissue union between the eyeball and surrounding capsule of conjunctiva was also effected quite rapidly; in one case being considerable at the end of four and a half days, as found by dissection.

Vascularity of the rim of conjunctiva attached to the transplanted eyeball was demonstrated in one case of reimplantation on the fifth day, and in most cases on the eighth or tenth day; it would show itself by a red rim around some portion of the cornea, and between the eighth and tenth days, in most cases, blood-vessels could be traced with the naked eye, passing from the palpebral to the ocular conjunctiva and thence to the rim of conjunctiva of the transplanted organ.

The tension of the eyeball began to diminish as early as the sixth hour (allowing a slight diminution present in all cases after enucleation), in most cases on the second day, when no bandage was applied; when bandaged well, tension remained normal throughout.

In some of the unbandaged cases the conformity of the eyeball was retained, and the eyeball simply the seat of atrophy and hardening; but in most of these unprotected eyes the cornea sloughed, the contents of the eyeball escaped, and a small or medium-sized, non-sensitive, retractive stump remained. In the bandaged cases the conformity of the eyeball remained good.

The changes in the optic nerve presented the well-known Wallerian degeneration; even with lower power enlargement, the difference, as shown by Weigert's copper-hæmatoxylin staining, was well marked in all cases; the central end of the nerve was found to terminate abruptly and to be the seat of degeneration. In all cases there was union of the sutured ends of the nerve; even in one case, examined four and one half days after suturing, the intervening substance between the central part of the nerve and the eyeball consisted in early stages of granulation tissue (small round-cells with very little intercellular elements), in later stages of fusiform cells mingled with connective-tissue fibres, some fat-vesicles and blood-vessels; later still, the connective tissue became firmer, but no nervous elements passed between eyeball and nerve in any case examined; the retinae were invariably degenerated. The point of junction, where the nerve had been sutured, presented usually a small bulbous enlargement, so as to have a greater diameter than the nerve itself; the catgut suture had been absorbed in all cases.—*N. Y. Med. Record*, May 29, 1886.

Howe (L.) on the Transplantation of the Eye of the Rabbit.—The result of the experiment was the sloughing of the globe in every instance. The length of time required to produce this varied considerably. In the early cases, the process of decay began almost immediately. Later it was delayed till the eighth, tenth, or finally until the twelfth day, and seemed dependent upon the causes already given.

As to sensibility being regained, it is difficult to decide this question from any motion of an animal, but I do not think it occurred, although the cornea was fre-

quently tested; nor did I find any tendency in the globe to return to its original tension, as reported by Dr. Chibret.

An interesting and suggestive phenomenon did appear, however, and to this I wish to call special attention, namely: When the eye of a white rabbit was transplanted, it was at first entirely bleached, with no red reflex from the fundus, but occasionally the original red reflex became visible even without the aid of an ophthalmoscope. In one case this was particularly well marked, and in others could be distinguished without much difficulty.

This appearance, slight as it may seem, would tend to show that a slight amount of circulation was re-established, and to give the shadow of a hope that with an improved method of operation it may be possible to have the globe retained, at least in part.

The importance of even this gain cannot be overestimated, and slight as the prospects of success may appear, the indications thus far are sufficient to warrant further experiments in that direction.—*Med. Press of West. N. Y.*, July, 1886.

Report on Sympathetic Ophthalmitis.—Two hundred cases were analyzed with the following conclusions:

1. Excision of the exciting eye, after sympathetic inflammation has begun in the other, is of very doubtful advantage, but does no harm.

2. Mercurial treatment seems to be without effect. Cases get well as often without it as with it.

3. Trediotomy does little harm, but no good. Performed on the exciting eye it seems sometimes to have done good.

4. An injured eye if not perforated, rarely, if ever, sets up sympathetic inflammation.

5. The interval between the injury and the sympathetic mischief has varied from nine days to twenty years. As a rule, the longer the interval the greater the risk of blindness.

6. The earlier the removal of a perforated eye the less note of sympathetic inflammation. If inflammatory changes have set in, removal may not prevent, but will at least mitigate, sympathetic inflammation.—*Provincial Med. Jour.*, May 1, 1886.

Panas on Glaucoma.—It is the author's conclusion that many cases of glaucoma are not helped by operation. On the other hand, he has obtained lasting

success from the employment of myotics in the form of collyria of sulphate of eserine or nitrate of pilocarpine, where iridectomy or sclerotomy were unsuccessful.—*Gaz. Hebdomadaire*, June 18, 1886.

Dor on Fatal Results of Enucleation.—Only 27 cases of death after enucleation have so far been recorded. In most of these the cause of death was a meningitis setting in from the sixteenth to the twentieth day after the operation. This meningitis has apparently been recovered from in four cases. M. Dor has had two fatal cases. One was a case of meningitis coming on six weeks after operation in a tubercular patient.

The second case was an old man with an old irido-cyclitis of one eye and a cataract of the other. Five days after enucleation the patient was doing well. Two days later he died of embolism, cerebral apoplexy, or absorption of the sublimate solution, the writer does not make it clear which.

In the discussion which followed, M. Gayet (Lyons) thought that death after enucleation was very often due to phlegmonous inflammation in the orbit caused by means employed to check hemorrhage. M. Gorecki attributed many bad results to chloroform, and for this reason always uses subconjunctival injections of cocaine.

M. Chevallerau enucleated an eye in a child of nine. Six weeks later the child died. The appetite failed, and there came on headaches, irritability, nightmares and delirium, auditory and ocular hyperæsthesia, vomiting, constipation, muttering, Cheyne-Stokes respiration, alternating redness and pallor of the face, and retraction of the abdomen.—*La France médicale*, May 6, 1886.

Hobby (C. M.) on Enucleation in Panophthalmitis, with a Fatal Case.—It seems to the writer that the confinement of patients, after operation, in dark and necessarily unwholesome apartments, has no scientific explanation, while the anatomical relations of the diseased organ and the pathological process, in panophthalmitis, combine with the ripe experience of Von Graefe, and the occasional experience of many others, to teach that enucleation of the panophthalmitic eye is accompanied with such an amount of risk to life as to make the operation warrantable only where the opportunity for gain is commensurate with the risk.

As this subject will doubtless be fully

discussed at the next meeting of the American Medical Association, I will present, without comment, the notes of a case in point, kindly furnished by my friend, Dr. A. E. Rockey.

March 5, 1886, P. B., age forty-five, German, stone-mason. The patient's right eye had received an injury from a fragment of stone, in the spring of 1883, and had been troublesome since. During examination, while separating the swollen lids, the nuclear portion of the lens escaped; the condition was markedly one of panophthalmitis.

April 1st. Enucleation.

April 2d. He felt well since the operation; no pain, appetite normal. 10 A. M., slight chill followed rapidly by thirst, fever, nausea, vomiting, and delirium. 1 P. M. Pulse, 145, temperature 103°.

April 3d. Delirium continued through the night and day, and during the evening of this day he became comatose.

April 4th. Comatose. Death at 6 P. M.—*Am. Jour. Ophthalm.*, June, 1886.

Alt (A.) on Eight Enucleations of Panophthalmitic Eyeballs; no Antisepsis; no Meningitis.—The paper by Dr. Hobby in connection with a number of papers on the subject of meningitis and death following the enucleation of eyes while suffering from purulent panophthalmitis, prompted me to look through my notes and to collect eight cases of panophthalmitis in which I had enucleated such eyeballs. They are from my private practice and reference is only made to cases in which I made the microscopical diagnosis of purulent panophthalmitis.

I have not employed any antiseptic agents in these cases, except plenty of water. After the operation, when all bleeding had stopped, I bandaged the eyes with absorbent cotton and a flannel bandage, exerting some pressure on the tissues of the orbit. This bandage was invariably left *in situ* for twenty-four hours, then changed once every twenty-four hours for three or four days. After that no further protection was employed.

As it has long been stated that enucleation of a panophthalmitic eyeball is dangerous to life, and as, of late, the number of cases in which meningitis, either fatal or nearly so, followed the operation, seems to have become rather frequent, I think, in order to come at the real truth,

the experience of such enucleations which were not followed by any untoward symptom should also be reported. The old dogma that purulent panophthalmitis of one never led to any sympathetic affection of the fellow-eye has, in the light of more recent researches, to be abandoned. Although I have in the foregoing only given cases from my own private practice, I know of a good many more cases from the practice of others, since I had occasion to histologically examine the enucleated eyes. The possibility of danger in these cases cannot, of course, be denied, but it seems to me that this danger is at present being considerably overrated. It even seems to me that the danger of infection of the meninges and brain would be decidedly increased by allowing an eyeball filled with pus to remain in the orbit, and its lymphatics in continuity with those of the cranial cavity.—*Am. Jour. Ophth.*, June, 1886.

Coomes (M. F.). Some Aphorisms in Ophthalmology.—

1. As a local anæsthetic to mucous surfaces and open wounds, the muriate of cocaine is one of the most certain and effective agents that is known.

2. All surgical operations on the eye, except enucleation of the globe, may be performed under the influence of cocaine with as much or more safety than under other anæsthetics.

3. In all forms of iritis keep the pupil dilated.

4. In acute retinitis unaccompanied by iritis, keep the pupil contracted, in order to keep out as much light as possible.

5. The only relief for senile cataract is surgical interference.

6. The rule is that all acute purulent discharges from the conjunctiva are contagious.

7. The only proper method of testing the vision in persons possessing the power of accommodation, is to suspend that power by paralyzing it, and then pursue the usual method with the trial lenses.

8. Jequirity is a dangerous remedy as well as an unreliable one, and should not be used by unskilled persons.

9. All kinds of strong caustic applications are contra-indicated in the treatment of acute purulent inflammations of the conjunctiva.

The best results are obtained by frequent cleansing with mild saline solutions, and

the use of weak solutions of the vegetable or mineral astringents (excluding nitrate of silver), a solution containing five grains of tannic acid and three grains of carbolic acid to the ounce of water, or from one half to one grain of the sulphate of copper to the ounce of water will be found among the most efficient agents.

10. It is always good surgery to remove a foreign body from the eye, provided it is not entirely within the globe behind the iris. If a foreign body is between the iris and the cornea, prompt removal is urgently demanded.

Great care must be taken in order to avoid wounding the lens, as such an accident would be certain to result in the production of cataract. If the foreign body should be entirely within the globe behind the iris, or if it should be large and partially within the globe, the question to be settled is, whether it will be best to remove the eye or the foreign body.

If the laceration of the globe is not too great, it will probably be best to remove the foreign body, and then if the globe becomes violently inflamed, or if sympathetic inflammation of the other eye should occur, remove the diseased member without delay.

11. An eyeball that is destroyed for visual purposes, and is painful, should be removed without delay, as it may induce inflammation in the good eye, and result in its destruction.

12. Whenever there is one or more small nodules about the margin of the pupil or in the iris in cases of iritis, it is almost absolute evidence that the disease is syphilitic.

13. The operation of strabotomy should be performed, if possible, without general anæsthesia, because its influence so thoroughly relaxes the muscular system that it is impossible to determine when the operation is completed.

14. When the iris is wounded and is protruding, it should be cut off, and the eye kept under the influence of a mydriatic until the inflammation has subsided.

15. An unskilled person should never attempt to replace a protruding iris, as such a procedure is difficult, and there is great danger of injuring the lens and inducing cataract.

16. Surgical interference is the only means of giving permanent relief to glaucoma. Eserine will give temporary relief,

and cocaine relieves the pain for a short time.

17. One of the most efficient agents in tenia-tarsi is an ointment composed of ten or fifteen grains of the yellow oxide of mercury to one half ounce of simple cerate, or some other suitable vehicle. This is to be applied to the lids night and morning after thorough cleansing.

18. Poultices of every description are to be avoided in diseases of the eye, unless ordered by some one who is especially skilled in this line of practice.

19. Whenever there is great œdema of the conjunctiva, and particularly when this is associated with excessive purulent discharge, the membrane should be snipped in numerous places so as to permit the pent-up fluid to escape, and thus prevent destruction of the cornea, which is always in danger in such cases. Remember that there can be no harm done by this cutting, and if it does not give the desired relief, a tarsarophy should be done.

20. In the majority of cases of strabismus, glasses are necessary as well as tenotomy, inasmuch as the strabismus in most instances is dependent on an optical defect which, if uncorrected, would cause a return of the squint.

21. It is always better to correct squint by means of a properly adjusted lens than by tenotomy.—*Medical Herald*, June, 1886.

DISEASES OF WOMEN.

Matweff on Parotitis after Ovariectomy.—In epidemic parotitis other organs are often secondarily affected, as the testicles in man, the breasts, labia majora, and minora, and ovaries in women. However, the reverse often takes place, the parotitis following the ovaritis. Dr. Morike, in the statistics of Schröder's clinic, among two hundred ovariectomies, found recorded five cases of parotitis. The author records two cases observed at the clinic of Prof. Slawiansky, at St. Petersburg. Both recovered. In one case the parotitis was bilateral. The inflammation lasted twelve days, suppuration ensued and incision was necessary.—(*Ann. de Gyn.*, xxiv., 1885, S. 105) *Cent. für d. med. Wissen.*, June 5, 1886.

Von Preuschen on Inflammation of the Parotid Gland after Ovariectomy.—He describes the case of a woman at-

tacked by gangrene of an ovarian tumor during the fifth month of pregnancy. Ovariectomy was performed, and on the third day parotitis set in. An abscess formed, was punctured, and recovery rapidly followed. Dr. von Preuschen did not discover any symptoms which, in his opinion, could by any possibility be considered to indicate sepsis. He attributed the parotitis to the entrance of micro-organisms into the parotid duct with simultaneous suppression of the secretion of saliva, after ovariectomy. Pauloff has found that opening the abdominal cavity and drawing out a coil of intestine generally causes diminution or suppression of salivary secretion. There is also complete abolition of the influence of the gustatory nerve on the saliva. This was ascertained by experiments on animals; possibly something analogous occurs in ovariectomy.—*Lond. Med. Record*, May 15, 1886.

Minot on Post-Partum Glycosuria.

—A healthy woman, of nervous temperament, was normally delivered of a healthy child, and convalescence progressed favorably for ten days. On the morning of the eleventh day, the mother awoke with a headache. The temperature was elevated one or two degrees; there was no chill, no pain, and no tenderness. The skin was hot, but not dry; the lochial discharge was normal. The specific gravity of the urine was 1030; there was a slight trace of albumen, and a large trace of sugar. The bowels had not moved on the day before, as they had regularly done previously. After the exhibition of purgatives the symptoms declined, and all went well the next day. The gravity of the urine was 1020, and the amount of sugar was about the same. After a few days it had nearly disappeared. Dr. Minot had never noticed the complication of glucosuria in the puerperal condition, and asked if other members of the Society had met with such cases. He would not have attached much importance to the occurrence, if the patient had not been of a nervous temperament.—*Obstet. Gaz.*, May, 1886.

Gillette (W. R.) on a Case of Vaginitis Due to the Presence of Red Ants in the Vagina.—A patient applied, complaining of irritation of the vulva and vagina, accompanied by profuse leucorrhœa. On examination, the vulvo-vaginal mucous membrane was found to be much inflamed, and bathed in pus. Vaginal in-

jections were ordered, but the patient objected to them, saying that they always made her worse. A few days later she reported again, and said that she had discovered the cause of her trouble, viz : red ants had taken up their abode in her fountain-syringe, and every time she used the syringe, the ants were poured into the vagina. Their bites undoubtedly caused the inflammation. He related the case merely to offer a new cause of vaginitis.—*Am. Four. Obstet.*, May, 1886.

Chadwick (James R.) on Rupture of the Vagina during Coitus.—A woman of ordinary size and development, forty-eight years of age, had been six years married to a sailor, with whom she had cohabited freely without difficulty or pain. Her husband returned from a four-months' absence at sea and had connection with great difficulty. Intense pain was experienced and profuse hemorrhage ensued. A purulent discharge set in on the second day. On examination a senile atrophy had taken place, making the vagina much shorter and smaller than normal. On the right side was a fresh longitudinal rent an inch in length located in the upper third of the canal.—*Boston Med. and Surg. Jour.*, April 30, 1885.

Masalitinoff (A. G.) on Coitus as a Cause of Rupture of the Perinæum and Vesico-Vaginal Fistula.—A newly married chlorotic, weakly, but normally developed middle-sized woman, aged twenty-four, called the author a few hours after her first intercourse with her husband ; the latter, a tall, powerfully built man, having been drunk at the time, and performed the coitus with the prepuce retracted. The patient was found in an utterly anæmic state, in consequence of her having lost much blood. On examination there was found a rupture of the perinæum, about three centimetres long and one and a half centimetre deep, beginning in the vagina from a point about one and a half centimetre above the posterior commissure, passing through a broad zone-like, smooth-edged hymen, and ending within half a centimetre of the anus. The lacerated wound was covered by a black blood-clot. No other injury in the genital organ was detected. The patient having refused any suturing, the treatment was of necessity limited to the use of ice, etc. ; the results, however, were satisfactory. The author was able to find only

two similar cases in the literature (Toulmouche's and Liman's cases, quoted by Hoffmann in his "Handbook of Forensic Medicine"). Another, probably unique, case which came under the author's observation was that of a normally developed Georgian woman, aged nineteen, in whom the first coitus was accompanied by agonizing pain and profuse hemorrhage, the blood oozing for a week afterwards. From the third day after the coitus almost the whole urine began, also, to flow from the vagina. On the examination, there was found an irregular opening, about a shilling-piece in size, situated on the anterior vaginal wall at the level of the uterine os, and leading into the bladder. The edge of the fistula was swollen, very tender, and infiltrated with urates. There was present, also, ante flexion of the womb, as well as lateral deviation to the right. The vagina was short, but otherwise healthy.—(*Vratch*, No. 13, 1885) *Lond. Med. Record*, May 15, 1886.

Hirst (B.) on Vulvo-Rectal Fistula from Violence during First Coition.—Previous to her marriage, which took place eighteen months ago, the patient, a young woman of twenty-two years, had been perfectly healthy. From the first attempt at sexual intercourse with her husband, which caused her to suffer such acute pain that she almost fainted, she dates all her trouble. The sexual act was also followed by severe hemorrhage, which persisted for a month ; the passage of fæces and flatus *per vulvam* was at once noticed. Every repetition of the sexual act for the next two or three weeks was followed by renewed bleeding, and even at the present time she suffers severely during intercourse. The passage of the fæcal matter through the vulva gradually increased in degree until the rectum was evacuated entirely through the vulva. There has been entire inability to retain flatus and fæces. Examination : The finger on entering the vulva passes at once into the rectum through a patulous opening of sufficient size to admit two fingers. Inspection shows a perfectly intact crescentic hymen of moderate thickness and rigidity, having a small anterior opening. Immediately in front of its posterior attachment is an irregular transverse tear, an inch and a half in its longest diameter, with thickened and everted edges, extending backwards and upwards for about one and one half inches, exposing to view the

mucous membrane of the bowel. The vagina is small and has evidently never been entered.—*Jour. Am. Med. Ass'n*, June 5, 1886.

DISEASES OF THE SKIN.

Villemin on Polymorphous Erythema.—The author concludes as follows :

1st. Erythema nodosum, papulosum, circinatum, etc. etc., or polymorphous erythemæ are only varieties of the same type.

2d. Polymorphous erythema is a general disease of a specific nature, of which the eruption is only a symptom.

3d. The pains, articular swellings, effusions, like the eruptions, relate, not to rheumatism, but to a unique morbid cause.

4th. Iodide of potash, 30 grains a day, in twenty-four or forty-eight hours, lessens simultaneously the swellings, pains, erythema, fever, insomnia, etc.—*Paris Méd.*, May 22, 1886.

Leloir on Observations on the Nature and Pathological Anatomy of Erythema and of Polymorphous Erythema in Particular.—M. Leloir (*Annales de Derm. et de Syph.*, vol. vi., No. 6) remarks that, among the several popular varieties of polymorphous erythema, the lesions, contrary to what Lewin has stated, do not commence subcutaneously, but in the cutis itself. The cutaneous vessels at first become dilated, chiefly those in the papillary layer, and in the centre of the cutis, and there is a slight diapedesis of the white corpuscles. These changes produce simple redness and spots on the skin, without any apparent infiltration. The lesions of polymorphous erythema are, in conclusion, those of hyperæmia and inflammatory hyperæmia, although that does not clearly indicate the exact etiology of the disease. The case of Jarisch, in which lesions of the gray matter of the spinal cord accompanied a case of herpes, iris, has remained isolated.—*London Med. Record*, April 15, 1886.

Köbner on a Case of Pruritus Cutaneus, Unilateralis after Embolism of the Brain.—A patient, thirty-six years old, who in her ninth year suffered from acute articular rheumatism with endocarditis, and had a similar attack in

her twentieth year, was seized in June, 1882, and in March, 1883, with paralysis of the left side, due to an embolism in the brain. In March, 1885, violent itching, which continued day and night, was experienced in the paralyzed side. On the right side the itching was limited to a small circumscribed spot. No change could be detected in the skin of the affected side ; but on this side the temperature was lower, the perspiration was absent, and urticaria factitia, from which the patient suffered, was here less marked. Relief was afforded by rubbing in twice daily an ointment composed of chloral and triturated camphor, $\mathfrak{aa}$ 5 parts, vaselin, 50 parts.—(*Monat. für prakt. Derm.*, vol. iv., No. 9) *London Med. Record*, April 5, 1886.

Hutchinson (M.) on the Treatment of Acne.—In conclusion, the author states that in the mild forms of acne, acne punctata, etc., local medication, accompanied by the internal exhibition of arsenic br., is sometimes sufficient for a cure. In more severe cases he employs, in males, the frequent introduction of cold urethral sounds, as advised by Dr. Sherwell, and in females hot vaginal douches, a mode of treatment recommending itself to himself.

As adjuvants to the cold sound and hot-water treatments he uses the following prescriptions, but has derived but little, if any benefit from them when used alone :

$\mathfrak{R}$ Tr. benzoin. simp. 3 ss.
Aque $\mathfrak{z}$ j.

M Sig.—Face-wash

$\mathfrak{R}$ Sap. viridis $\mathfrak{z}$ viij.
Aq. cologn. $\mathfrak{z}$ iv.

Solve et filtra. Sig.—To be used as cleansing face-wash.

$\mathfrak{R}$ Sulphur. precip. 3 ij.
Ung. vaselin. 3 vij.

M Sig.—Apply once a day.

The above is a useful ointment, more useful, however, in acne rosacea than in acne vulgaris.

As a laxative mixture the following :

$\mathfrak{R}$ Ferri. sulph. gr. xv.
Acid. sulph. dil. 3 ijss.
Magnes. sulph. $\mathfrak{z}$ ij.
Aque ad $\mathfrak{z}$ vj.

M Sig.—Two drachms half an hour before breakfast in half a glass of water.

Arsenic given in the following form is sometimes quite efficacious :

$\mathfrak{R}$ Sol. arsen. br. (Clemens) 3 ij.
Aque ad $\mathfrak{z}$ iv.

M Sig.—One drachm t.i.d., gradually increased to two drachms t.i.d.

—*N. Y. Med. Record*, May 29, 1886.

Fox (G. H.) on the Value of Arsenic in Skin Diseases.—The very common practice of giving arsenic in nearly every case of skin disease is irrational and harmful.

It is irrational, because in the majority of cases the remedy produces very little, if any, benefit.

It is harmful for the following reasons :

a. In many cases it increases cutaneous congestion, intensifies pruritus, and thereby aggravates the eruption.

b. It is very frequently relied upon to the exclusion of other and better plans of treatment.

The universal employment of arsenic in the treatment of skin diseases is no more a proof of its value than was the former practice of venesection for most diseases a valid argument in favor of that plan of treatment.

The beneficial change which sometimes follows the use of arsenic is frequently due to adjuvant treatment, and erroneously attributed to the administration of this drug.

In spite of the widespread belief in the value of arsenic, there has never been published a series of carefully recorded cases in which the sole administration of this drug has produced any notable therapeutic results.

There are some forms of chronic inflammatory skin diseases, and possibly some affections of a malignant type, in which the internal use of arsenic will undoubtedly exert a beneficial influence.

In most cases of inflammatory skin disease, regulation of the diet, and such hygienic and medicinal treatment as tends to improve the general health of the patient will do infinitely more good than the routine administration of arsenic.—*Jour. Cut. and Ven. Disease*, June, 1886.

Owen on Bronzing of Skin Caused by Arsenic.—The case was that of a girl, aged ten years, suffering from chorea, for which disease liquor arsenicalis had been prescribed. The dose had never exceeded five minims three times a day. In about a month from the commencement of treatment, discoloration of the skin was noticed on the trunk. It extended to the arms and legs, and, lastly, affected the lower eyelids slightly. The arsenic was given up, and in a few weeks the discoloration began to fade. Dr. Owen pointed out the resemblance which this case bore to the bronzing of Addison's disease; but the absence of

asthenia, and the fact that the discoloration affected the covered parts almost alone, and the flexor rather than the extensor aspects of the arms, rendered the diagnosis free from error in that direction.—*Br. Med. Jour.*, May 22, 1886.

MISCELLANEOUS.

Holden (E.) on a Case of Gummatus Disease of the Larynx, with Spontaneous Reopening of the Larynx after Thyroid Laryngotomy.—L. D., aged thirty-five, presented himself May 20, 1885, with dyspnoea and aphonia. Examination showed a cicatrix on the epiglottis, and the left side of the larynx presented a rounded mass of dull appearance. He denied syphilitic infection. After a careful consideration of the case, the probabilities were thought to favor syphilis, and he was given iodide of potassium in large doses. There was improvement for a short time, but he soon became intolerant to the drug. Thyroid laryngotomy was considered necessary, and was performed. The tumor was removed with the eraser; no ulceration was visible. Tracheotomy was then performed, and the upper incision closed with sutures. The patient did well, and the tube was removed on the tenth day. The external wound healed. He insisted on returning to his home, where the surroundings were very unfavorable, and his health deteriorated. On the fortieth day after the healing of the wound, the laryngeal incision was torn open by a severe cough. He refused to return to the hospital. Examination of the larynx showed no disease. Under the surroundings, it was impossible to get the wound to heal. His health continued to run down, and six months and fourteen days after the operation, the patient died of exhaustion. The patient had lived five months with an opening in the larynx.—*Bost. Med. and Surg. Jour.*, June 17, 1886.

M'Neill (R.) on the Analgetic Action of Carbolic Acid and the Cresol Group of Compounds.—The conclusions which may be drawn from the author's experiments and observations are—(1) The agents mentioned produce analgesia when applied to the skin. (2) That mixed in certain proportions with glycerine or olive oil, they take away the sensation of pain without causing any un-

toward effect, either locally or constitutionally. (3) That the strength used must vary according to the thickness of the epithelium, and perhaps the acuteness of the sensation. (4) That certain operations may be performed by their aid, painlessly without chloroform. (5) That they are corrosive when applied to the skin, unless sufficiently diluted. (6) That glycerine has more power in preventing corrosion by these agents than olive oil, and might probably be administered with benefit in cases of poisoning by carbolic acid or any of the above agents.—*Edin. Med. Jour.*, June, 1886.

Hitchcock (U. G.) on Gummatous Infiltration of the Base of the Tongue.

—The author gives the details of four cases coming under his observation. In one of these cases was the fibrous septum the exclusive seat of the disease, and in three cases the deposit did not approach this structure. In these cases the degree of dysphagia was in direct proportion to proximity of the deposit to the base of the tongue.—*Bost. Med. and Surg. Jour.*, June 17, 1886.

Farlow (J. W.) on an Abnormal Artery of the Pharynx.—The patient was a girl, aged twelve years, in whom a large artery was seen passing in a diagonal direction across the posterior wall of the pharynx, where its pulsations were plainly visible, and could be felt by the finger. The vessel was of larger size than the radial artery in the same patient, and was covered only by the mucous membrane.—*Bost. Med. and Surg. Jour.*, May 13, 1886.

Esipoff (N. A.) on Rupture of the Female Urethra during the First Coitus; Impetfocate Hymen.—A newly married female, aged nineteen, who had never menstruated, but every three weeks suffered from menstrual molimina, during the first coitus, both of the parties being in an inebriated state at the time, suddenly felt acute burning pain in the vulva, which was followed by very profuse hemorrhage. When first seen, five hours later, the patient was found to be anæmic, the source of the still continuing hemorrhage being a laceration of the urethra about two centimetres long, running from the edge upwards to the bladder. A fluctuating tumor, of the size of a hen's egg, was bulging from the vaginal orifice. It was covered by the normal skin, with distinct veins. A finger introduced into the rectum

revealed a fluctuating cyst occupying the whole lesser pelvis. The womb was greatly distended, its fundus being felt a finger's breadth above the navel. After arresting the bleeding by cold-water douche, the author closed the wound with five sutures of reindeer tendon and introduced Nélaton's catheter *à demeure*. Three days later the wound was found healed by the first intention, no trace of sutures being left. On the fourth day (after the accident) a large-sized trocar was thrust into the distended hymen to remove about 2,000 cubic centimetres of inspissated, tar-like, inoffensive menstrual blood. Then, having washed out the cavity with a sublimate solution, the author enlarged the puncture with a bistoury. On examination, neither vaginal roof nor vaginal portion of the womb were found, the uterus and vagina representing one cavity, with a slightly prominent ring at the level corresponding to the internal uterine os. A week later the womb assumed its normal size; the cervix was formed already, but was still somewhat short and flabby, the external os being patent, its edges star-like and knotty.—(*Méditz. Obozr.*, 1886, p. 47) *Lon. Med. Record*, May 15, 1886.

Masséi on Laryngeal Erysipelas.—The author thinks most cases of acute primary cedema are cases of erysipelas of the larynx. He thinks there are two forms—one in which the local and the other in which the general symptoms predominate. As treatment, he advises, first, the use of cold aided by intestinal revulsants, and general treatment as indicated; secondly, scarification; and thirdly, tracheotomy when suffocation threatens.—*Rev. de Therap.*, May 15, 1886.

BOOK NOTICES.

A Compend of Pharmacy.—By F. E. STEWART, M.D., Ph.G., etc. P. Blakiston, Son, & Co., Phila. 196 pp. Price \$1.00

This volume is No. 11 in the publishers' very tasty and useful series of "Quiz - Compends," and is based upon Prof. Joseph P. Remington's "Text-Book of Pharmacy." This fact and its authorship are sufficient recommendations for the character of the work, but a glance at its pages shows at once how well fitted it is to the wants of students of medicine, and particularly students of pharmacy.

As the author says, a "Quiz-Compend" "is *not* a text-book," nor is its "object to teach new facts," but "rather to present facts already well known in a form easy to comprehend, for the purpose of aid-

ing the student in memorizing them." Written, as this book is, by a practical quiz-master and well-known writer on pharmacological subjects, it is eminently worthy of the highest commendation.

R. W. A.

A Manual of Differential and Medical Diagnosis.—By CONDUCT W. CUTLER, M.S., M.D., etc. G. P. Putnam's Sons, N. Y. and London. 156 pp.

In his modest preface the author speaks of his work as simply a compilation, but to aid him the author has had what, to a young man, has been an exceptionally large experience. This shows itself in his writing, as do the studious and methodic habits he evidently possesses in a marked degree.

The diagnostic points of a disease and those of the diseases to be differentiated are arranged in parallel columns.

The book is unique in its arrangement and in the exact ground covered. It represents a great deal of work on the part of the author, and will be the saving of a great deal of work to the student into whose hands it falls.

It covers more ground than its title implies, and is a condensed general Medical and Differential Diagnosis. Shorn of the verbiage of larger works, and condensing the pith of all, it is an invaluable book for students of medicine.

J. T. T.

PUBLISHERS' NOTES.

Horsford's Acid Phosphate.—Dr. David Clark, Springfield, Mass., says: "Horsford's Acid Phosphate is the only proprietary medicine I ever use or prescribe."

Peacock's Bromides.—I have given Peacock's Bromides a *thorough test* and am pleased to state that after an experience of twenty-five years I have never found any remedy which acts so surely as this preparation does. I am sure that in the near future, especially in the treatment of the brain and nerves, it is destined to take the place of the older preparations to the benefit of both physician and patient.

FRED. B. WOOD, M.D.,

456 Broadway, Milwaukee, Wis.

Colden's Beef Tonic.—

MARINE HOSPITAL, PORT OF BALTIMORE, }
Jan. 16, 1875. }

Dear Sir: In compliance with your request to give you my opinion of "Colden's Liquid Beef Tonic," I take pleasure in recommending it as a most excellent stimulant, tonic, and invigorator of the system, which can be used whenever a stimulant and tonic combined is not contra-indicated. I have tested it in many cases, since its introduction into our market, with universal success. Very respectfully yours, &c.,

WM. F. STEUART, M.D.

Lactopeptine.—

935 N. BROAD ST., PHILADELPHIA, PA.

Lactopeptine prevents flatulence, promotes digestion and assimilation of food. It thereby secures infants from Convulsions, Cerebral Disorders, Diarrhœas, Cholera Infantum and a catalogue of ills. Its benefits are soon observed, and its use not generally long required, but may be continued without injury.

I. S. ESHLEMAN, M.D.

Aletris Cordial.—I have used Aletris Cordial (Rio Chem. Co.) on several different occasions as an Anodyne and Alterative with good results.

J. R. H. DAY, M.D.

Baton Rouge, La.

Pinus Canadensis.—I have used Kennedy's Pinus Canadensis and find it to be of great value.

WM. HALL, M.D.

Oginkuit, Me.

Viburnum Compound.—Send for samples of this excellent preparation to N. Y. Pharmaceutical Co., Bedford Springs, Mass.

Iron-Alum Mass.—The Seven Springs Iron-Alum Mass is the best iron preparation known to the profession.

L. J. BURTON, M.D.

Blossom Prairie, Texas.

Crust Pepsin.—This preparation has already met with great favor with the physicians of this country. See the advertisement of Wm. F. Kidder & Co.

Cod-Liver Oil Tonic.—In prescribing cod-liver oil, if you order Scott's Emulsion you will give your patient not only a pure oil but a combination holding the hypophosphites of lime and soda in intimate mixture.

Lactated Food.—This Food is indorsed by over four hundred physicians; send for samples to Wells, Richardson, & Co., Burlington, Vt. Mention the ANALECTIC.

Operating-Chair.—The conveniences of having an adjustable chair in one's office, for purposes to which the Klein chair, made in Chicago, is adapted, will be appreciated if Mr. Klein's circular be read.

Ricord Capsules.—Send to E. H. Truex, 298 Pearl St., New York, for circulars pertaining to these capsules.

THE MEDICAL ANALECTIC

A
MONTHLY EPITOME OF PROGRESS IN ALL DIVISIONS OF
MEDICO-CHIRURGICAL PRACTICE

EDITED BY
R. W. AMIDON, M.D.

VOL. III., No. 8.

August, 1886.

WHOLE No. 32.

LEADING ARTICLES.

Ball (A. B.) on Two Cases of Myxœdema, with Remarks on the Pathology of the Disease.—After narrating his own cases in detail and supplementing them by abundant references the author concludes that the thyroid gland has important metabolic functions, and that in many cases its loss, either by operative removal or by the slower processes of disease, must seriously impair the general nutrition of the body, especially that of the nervous system. In what order of development the lesions of myxœdema follow the loss of thyroid function can only be conjectured. Possibly, the mucoid infiltration and enormous connective-tissue dystrophy may be determined directly by withdrawal of the part taken in the metabolic processes by the thyroid gland, and the nerve-lesions, in part at least, may be the result of compression by hypertrophied connective tissue. It seems more probable, however, from the symptoms following thyroidectomy, that the loss of thyroid function modifies the nutrition of the nervous system directly. Upon this view the connective-tissue changes may be regarded as a neurotic dystrophy, and the more important symptoms as due to lesions arising from defective nutrition in the brain, medulla, spinal cord, and sympathetic system. But these are points upon which our present knowledge does not warrant positive conclusions. The object of this paper has been accomplished in directing attention to the highly probable, if not conclusive, evidence that in myxœdema the determining factor in the group of lesions is the one which is the most constant and conspicuous, viz., degeneration and atrophy of the glandular elements of the thyroid body.

The symptoms following thyroidectomy in the lower animals have recently been re-

studied by Victor Horsley, of London.—*Br. Med. Jour.*, 1885, 1, pp. 111, 221.

From the histological structure of the thyroid gland, and the results of his experiments, Mr. Horsley draws the following conclusions :

1. "The thyroid gland appears to consist of two distinct portions ; (a) glandular, consisting of highly vascular acini, which excrete into their inferior a mucoid substance, this substance, or some thing closely similar, being found in the lymph-vessels of the gland—mucin-excreting function ; (b) highly vascular lymphoid nodules—hæmatogenous function.

2. "Excision of the gland is followed, according to my experiments, by an increase in the amount of mucin in the tissues which normally possess it, by a retrograde histological change, by an increase in the activity of the glands which normally excrete it, and (what is still more striking) by the assumption of the muciparous function by the gland which normally possesses none or very little mucin—by the parotid gland.

3. "Excision of the gland is followed by profound changes in the blood, viz. : a diminution in the number of corpuscles, preceded, as regards the white elements, by a temporary increase in their number, by an alteration in the coagulability and albumens, and by an abnormal presence of mucin.

4. "Excision of the gland is followed by nerve symptoms indicating change in the lowest motor centres, these changes causing tremors with rigidity and paresis ; it is also followed by changes in the higher psychocortical centres, such producing imbecility, and ultimately death in the comatose state."—*N. Y. Med. Record*, July 10, 1886.

Gordon (James) on Myxœdema Following upon Removal of the Thyroid Gland.—Mrs. A—, aged

forty-two, a widow, who had a large goitre of several years' standing, not less than six, was operated upon by Professor Lister eleven years ago, and the entire thyroid gland completely excised. The operation as a piece of surgery was eminently successful, and the patient, so far as this point was concerned, made a good recovery. She accordingly returned home about the end of three months from the time she entered the hospital. When she left she was still weak and pallid, but the weakness and pallor appeared to herself and those concerned the natural result of an operation of such magnitude. Inquiry made subsequently, however, elicited the fact that even before she left the hospital she found that her speech was effected, and that on reading aloud for a time she became hoarse. That she was correct in this, and that she had undergone some profound change besides that which the infliction of a great operation would produce, could be detected in her very appearance. Of this no better testimony could be adduced than her first interview with her mother, an aged woman, but possessed of all the keenness of her faculties. She was, on the day of her return, anxiously awaiting her daughter's arrival, and when Mrs. A—— stepped in, the mother inquired if "Marion was not come." The daughter replied, "Yes, Marion *has* come." The mother, not recognizing her daughter, and fearing she was a messenger sent with bad news about her, exclaimed, "Is Marion dead?" "No," she replied, "I am Marion myself." But the aged mother, not yet recognizing her daughter, insisted: "You cannot be Marion, for you have neither Marion's *face* nor Marion's *voice*." This scene shows that already, at this early date, important alterations were produced in this woman's constitution, and that the origin of this sprang from the operation. Indeed, it was a popular remark, made to her on every hand, that she was not recognized.

When first seen by me soon after her return home, her strangely altered appearance took me by surprise. Her face was pale, yet not the pallor of loss of blood—it was a sallow, pasty paleness. It was swollen, especially about the eyes, the eyelids above and below presenting a waxy transparent look. The lips were thick, swollen, and of a purple color, and the expression of the face was lost and imbecile-like. The first thought suggested by

her look was that kidney affection was present, but on hearing her speak I was struck with the alteration here. She spoke in an embarrassed manner, slowly, and with a nasal intonation. At this early date, then, there were already present, the following symptoms: feeling of great weakness; feebleness in walking; face pale, sallow, pasty, and swollen; speech affected in the manner just described. The question of renal disease was tested. The urine was scanty, no albumen present, and nothing abnormal in its specific gravity. The heart sounds were feeble, but nothing otherwise abnormal existed; they might perhaps resemble the sounds of a dilated heart. Neither at this time nor at any time afterwards was there ever any thing wrong found with the heart or kidneys; the latter throughout the course of the case exhibited the abnormality of a marked deficiency of secretion. Some days (especially when the bowels were constipated) very little urine was passed. A pint and a pint and a half were the common measures of the amount; it never exceeded or rarely amounted to two pints. There was feebly acid reaction; specific gravity 1025; phosphatic deposit.

In a short time additional symptoms developed, so that by the end of six months the patient began to display the following:—The swelling of the face and the oedematous condition of the eyelids were more marked; but at this time, as well as afterwards, this was subject to variation, being always greater in amount, for example, when the head was in a dependent position. There was no blush on the malar eminences, but the point of the nose displayed a pinkish hue. The fingers, backs of the hands, and wrists became swollen, coarse, and red-colored. The fingers became more awkward and less useful at work; they fumbled in buttoning her dress, for instance, so that this operation took a long time, and in cold weather became almost impossible. She could not pick a small object from the floor—she felt no pith in her hands or fingers; for instance, in washing the floor she found that cloth and hand rolled round together. Then she noticed that she lost sensation in the fingers. This was first observed in sewing; she found she could not feel the needle between her fingers—could not distinguish between a "darning" and a small fine needle; so that she was obliged to desist from this industry. Her feet swelled occa-

sionally—*i. e.*, either with too much walking or standing, or, on the other hand, when entirely sedentary. When the feet swelled they felt as if standing on a wet, damp place. But she experienced abnormal sensations also in her feet at other times—*e. g.*, when lying in bed. Her walk became feeble and staggering, like one drunk. She found herself apt to fall, and was always in fear of doing so. The least object, as the edge of a carpet, would cause her to tumble. Her limbs felt stiff and feeble, so that she could not lift them up to mount a high bed or carriage. Cold weather aggravated the weakness, as she called it, in her hands and feet. So, too, with respect to her speech—when exposed to cold she could hardly utter a word. She always felt cold, even in the hottest weather. Her temperature was always subnormal— 97° , 97.2° , 97.6° , and sometimes even below 97° ; it scarcely ever reached 98° . When she made an effort to walk her best, as when she walked on the public road, she felt her head as if *nodding*. I have not myself observed this point, but the patient described the condition as resembling that of one having the “shaking palsy.” This feature apparently arose from weakness of the muscles of the neck, and the loss of voluntary power to co-ordinate their action. After a time—*i. e.*, when the effort to do it well ceased—the phenomenon disappeared. Her tongue was somewhat large; she herself insisted that it was too large for her mouth, giving as a proof of this that she found it projecting beyond her teeth in the morning on waking. I cannot, however, say that it presented such extreme bulk whenever an examination of it was made by me. Her abdomen became large and bulky universally. This feature was marked at the earlier period of the history of the case and seems to have annoyed the patient most. She felt ashamed to appear in public on account of it, lest it should be thought that she was pregnant. This increased bulk did not appear to me to depend so much on any underlying deposit in the abdominal cavity as on relaxation of the intestinal walls yielding to gaseous distension. Her skin became dry and rough, constantly throwing off a coarse furfureous desquamation, and even thick scales. Her hair began to fall off, and continued to do so for a period of four years, when at length the scalp became almost entirely bare, and at this stage shed large, coarse,

thick scales. The eyebrows also became thin and scanty. The bowels were habitually constipated, never acting without laxative medicine. She feels a lightness and giddiness in stooping or in rising after stooping. On getting out of bed in the morning she had to be careful lest she fell; and similarly, in stooping to light the fire, she was obliged to rest on her knees, otherwise the giddiness would cause her to fall down. Her memory is much impaired, but she is not the least affected as to her intellectual faculties. She is peculiarly placid and self-possessed. Her expression and speech cause her to appear slow and stupid, but she is intelligent enough. Her ideation may be slow, but it is quite clear and accurate. Having been previously shortsighted, her vision is not consciously affected; there is no impairment of hearing or of sight, and no difficulty ever experienced in swallowing. Her menstrual functions continued unaffected, and was prolonged to the age of fifty. There is one point more to be noted—the patient herself drew attention to it—*viz.*, that the least pressure on the skin left a livid mark behind, so that she was constantly ecchymosed about the hand.

Such was the assemblage of symptoms presented by this case. I say *was* presented (and in my details of the case, the past and present are mingled together), for there is no doubt that at this moment the patient is so far improved that some of the symptoms have altogether disappeared, while of many others there is amelioration. For example, she has recovered sensation in her fingers, so that she is now able to sew. There is also less anæmia, and decidedly less œdema. Probably an atrophied condition of the subcutaneous tissue exists, but of this I am not sure. The hair has grown again, and though not luxuriant, is a fair growth. The speech, too, is considerably improved. The amelioration in regard to these points have been, I may say, gradual and insensible. The patient remains but a wreck of what she was, this improved condition notwithstanding.—*The Lancet*, July 10, 1886.

Lorimer (G.) on Saturnine Gout and its Distinguishing Marks.—The conclusions arrived at are based upon an analysis of 107 cases of gout due to plumbism, which have occurred in the writer's experience, and the subsequent remarks constitute a record of facts so observed.

Briefly to summarize, the distinctive marks are as follows :

1. *Age*.—The first attack of gout due to lead-impregnation occurs at an earlier age than when independent of it. Of 107 cases, the first attack occurred prior to 35 in 70 cases ; and, in the remaining 37 cases, occurred for the first time between the ages of 35 and 65. This contrasts with the history of non-saturnine gout ; for the first attack of the latter usually occurs from 35 to 40, while acquired gout is frequently a disease of later life.

2. *Hereditary Tendency*.—In saturnine gout, the influence of direct hereditary predisposition is less marked. Of 107 cases, it was noted in 9 ; and, even admitting that deductions drawn from negative proofs are only partially conclusive evidence of its absence, still this percentage contrasts with non-saturnine gout, where hereditary predisposition is found to occur in at least 50 per cent. When hereditary tendency includes the arthritic group of diseases, the predisposition is increased from 9 to 30 per cent.

3. *Anæmia*.—In gout, the blood-corpuscles undergo no change in number and quality. The anæmia of saturnine gout results from the lead-cachexia, and is probably due to the action of lead on the blood. The red corpuscles are diminished in number, the white sometimes increased, and the red coloring-matter is reduced. Anæmia was noted in 75 cases ; in the remaining 32 cases, it was less marked or absent. The anæmia of saturnine gout not only contrasts with the sanguineous arthritic diathesis, but affects and modifies the type and progress of the disease.

4. *Asthenic Type of Arthritis*.—From the early age at which saturnine gout occurs, when functional activity is more vigorous, asthenic and acute type of arthritis might be expected to prevail. In the early attacks in many cases, and in subsequent attacks in a minority of cases, the arthritis assumes this type ; but, in the majority of cases, the type of arthritis is athenic or adynamic. The local and constitutional phenomena are less intense, but more persistent, lingering, and obstinate, and shows a tendency to pass insidiously into a chronic form. The asthenic type of arthritis appears due to impaired vital activity, resulting from the cachexia, and to organic renal changes which subsequently arise.

5. *Albuminuria*.—The experiments of

Ollivier, denied by Rosenstein, but repeated with affirmative results by Charcot and Gumbolt, show that albuminuria occurs in lead-impregnation. On the other hand, Dr. Garrod has found that in gout, especially in its chronic form, albuminuria is present in 26.5 per cent. of cases. *A fortiori*, it follows that, in saturnine gout, albuminuria would occur more frequently. In the 107 cases, it was present in 89, either as an intermittent or permanent condition. In 18 cases it was not noted. In the early history it may be absent, in subsequent stages it may be intermittent, but it may be doubted whether it is ever entirely absent during the whole progress of the disease. A daily examination of the urine has, in the writer's experience, seldom failed to discover its presence, and there is no sign in saturnine gout more constant, certain, and characteristic. Further, the specific gravity of the urine is diminished, averaging 1012. The quantity of uric acid is decreased, and, in the final stages of the disease, is absent altogether.

6. *Arterial Thickening and Degeneration*.—This condition, noted in 69 cases, consists of a sclerosis of the arterial coats, along with atheromatous changes. It is, in fact, a premature ageing of the arterial system. *a*. It may be due to the action of lead, which causes contraction of the muscular walls of the arteries, and raises arterial tension. *b*. It may be connected with the renal changes which arise in saturnine arthritis. *c*. It may depend on the condition of the blood in gout, which gives rise to increased arterial tension, and predisposes to atheroma. Cardiac hypertrophy is observed in saturnine gout, especially at the advanced period of the disease. The arterial changes, however, may occur independently of the cardiac. Pericarditis has been noted by Charcot and Gumbolt. One instance only was noted by the writer in the cases referred to.

7. *Cutaneous manifestations* of gout are seldom present in saturnine arthritis. Of 107 cases, one was associated with psoriasis and one with eczema, and in the latter instance there was a hereditary history of gout, contrasting with non-saturnine gout, where eczema occurs in 18 per cent. of cases.

The blue line upon the gums, due to formation of lead-sulphide, was noted in 87 cases. It is a sign which may indicate the cause of the gouty phenomena.

Gouty affections of the eyes were of infrequent occurrence. One case of iritis was noted. Exception, however, may be made to neuro-retinitis, in the causation of which gout and plumbism appear both to participate.

Joints affected in Saturnine Gout.—In 28 cases, the joints of the feet were involved, in seven of which the great toe only was implicated. In 20 cases, the joints of the hands. In 34 cases, the joints of the hands and feet were both affected; in the remaining 25, the knees also were implicated, in 4 of which the elbows also were affected. In 23 cases, tophaceous deposits were noted on the helix of the ear. Gout associated with lead-impregnation, however, seems to attack the kidneys. Gout associated with alcoholic excess generally attacks the joints. Lancéreaux has observed that, in saturnine gout, uratic deposits are less abundant, and with this opinion the writer's experience is in some measure in harmony. It is, however, a question of degree, not of kind. Their presence is conclusive evidence of gout.

The experience of some observers is that rheumatism, and not gout, is associated with plumbism, and the difference is ascribed to the absence of previous habits of alcoholic intemperance. The explanation is incomplete. Gout may supersede rheumatism. The writer has observed more than one instance in which the question of alcoholic intemperance might be dismissed, where plumbism was originally associated with rheumatism, and in which uratic deposits occurring twelve years subsequently showed unequivocally the gouty character of the disease. Such cases seem to lend some countenance to the doctrine of a "basic arthritic diathesis," out of which are evolved, under special causes, the several arthritic diseases.

How far saturnine gout may be due to the action of lead on the pneumogastric nerves, leading to imperfect metabolism, and on the trophic centres of the joints in the spinal cord, are subjects at present in the region of conjecture.—*Br. Med. Jour.*, July 24, 1886.

Peabody (Geo. L.). A Contribution to the Symptoms and Pathology of Endarteritis Obliterans.—It is interesting that death may result from this lesion, with striking clinical evidences of destruction of motor areas in the brain, which autopsy reveals to be intact. The only ex-

planation which suggests itself is that, in addition to the partial obliteration of the lumen of the nutrient artery of the area affected, there must have been a spasmodic contraction of the vessels which was sufficient to cause complete local arrest of the circulation. The duration of this spasmodic contraction varies. In some attacks it lasts only a few minutes, and then all the symptoms pass away as rapidly as they come. In others the duration is prolonged to such an extent that life comes to an end before it ceases; and yet the duration may not be sufficiently prolonged to cause softening of the brain-area affected. Another possible termination is hemorrhage.

This lesion is common enough in nearly all the organs of the body. I have frequently seen it in the lungs, kidneys, heart, and in neoplasms, especially in epitheliomata. It has been, however, in my experience, commoner in the brain than in any other organ. It needs not to be said that it does not always produce symptoms.

It was, at one time, supposed to be invariably due to syphilis, but that idea is now no longer held, although it is more common in syphilitics than in others.

The earlier writers on this subject—Steinburg, Heubner, Wilks, and others of more recent date—maintain its dependence upon syphilitic infection; but it has occurred in so many patients in whom no other evidence of that disease could be found, either clinically or anatomically, that it seems to me fair to admit that this cannot always be the case.—*N. Y. Med. Record*, July 17, 1886.

A Case of Endarteritis Obliterans Causing Necrotic Softening.—In a case having all the symptoms of general paresis, except delusions of grandeur, Dr. Hugo Engel found the following lesions on autopsy, the head only being examined:

The blood-vessels of the pia were swollen; pia itself at places thickened, opaque, and tightly adhering to brain-tissue beneath. Very often the pia, where it descended between two convolutions, had a milky appearance, and below it the cerebral tissue was softened.

The large arteries at the base were empty; passing along them with a finger, one felt small, roundish bodies within their lumen, and on opening these vessels they were found to contain many unevenly distributed round deposits, which seem to be one with the inner lining membrane, hav-

a whitish, grayish-white, or yellowish color, hard to the touch, like cartilage, and are met with mainly where a branch leaves the vessel. Wherever these neoplasms were, the blood-vessels appeared narrowed.

Most of these new growths were found in the left arteria fossæ Sylvii and its terminals. At several places in this artery these growths had reached such a size, and were so numerous where smaller arteries branched off, that they had closed the lumen of the latter, and acted, therefore, as real thrombi. The parts nourished by them, Broca's convolution, the Isle of Reil, and the corpus striatum, and the neighboring parts, especially in the left ventricle, were softened, while the rest of the brain, notwithstanding the length of time intervening since death occurred—ten days—had retained its normal consistency.

To settle a difference of opinion as to the nature of the endarteritis, portions of the diseased arteries were sent for examination to Heubner at Leipsic. He replied practically as follows :

The changes in the arteries are uniformly of that kind, that they have *probably* been caused by syphilis, but they *might possibly* be due to a common arterio-sclerosis. If specific, it must be an *old* process in the arteries, not a recent arterial syphilis. But such an advanced stage of the endarteritis of syphilitic persons may have, as I have mentioned in my work, page 159; a great resemblance to the picture of a simple arterio-sclerosis. But it speaks more in favor of specific disease :

1. That arteritis is found only in *foci*.
2. That at these places the adventitia is unequally more granular than in the normal parts and the mucosa is filled here and there in spots with granules.
3. That the lumen of the arteries is *narrowed* at the seat of the lesion, while it is the rule to be *dilated* in common arterio-sclerosis.

I therefore consider it very highly probable that we have to do here with a luetic endarteritis. — *The Med. Bulletin*, July, 1886.

Channing (W.) on a Case of Epilepsy of Forty-five Years' Duration, with Autopsy.—The patient, a female, eighty-one years of age, died in February of the present year (1886). She was small of stature, of wiry, active build, and capable of enduring considerable physical strain. In old age she was lithe and active as a

child, and possessed the characteristic of her family—of retaining the natural color of her hair, with few gray hairs, up to the day of death. She belonged to a long-lived family, a sister living to upwards of ninety-five, and another relative to over one hundred. She inherited no insanity, but some members of the family were nervous, impulsive and quick-tempered. She was herself rather quick and impulsive in her feelings, and had such unusual ways of doing things that she was sometimes called eccentric.

She was married, had one child, and was in fair general health up to 1841, when she sustained a severe injury by being thrown from a carriage on to a stone wall, striking on her forehead. The point struck was in the middle of the forehead, about an inch above the supra-orbital arches, and exactly in the median line. An indistinct cicatrix at the point described has always been apparent on near inspection. It was round, and about the size of a half dollar. A relative states that the attending physician performed the operation of trepanning, or trephining, and the circular shape of the cicatrix, both of the scalp and skull, would seem to bear out the assertion that the latter operation might have been done. A later medical attendant says that he never heard of it, but the probabilities are that it was performed.

The accident was followed by a symptom of concussion, and for several weeks the patient was unconscious and delirious. She slowly recovered from the accident, not regaining her former physical strength. Up to the year 1859 she continued in fair health mentally and physically, though growing more peculiar and eccentric. During these twenty years she passed through the change of life.

In 1859 she had the first attack of *grand mal* known to the friends. That she had previously been subject to seizure of nocturnal epilepsy in the form of *petit mal*, the statements of some observers and the change in her condition furnish strong presumptive evidence. The attack of 1859 was characteristic. Others occurring soon after made it necessary to have her always in the company of some one else, in order that no accident might occur. These attacks were accompanied or followed by slight local paralysis, and the mouth became permanently drawn to the right side. Mental irritability also began to develop,

accompanied sometimes by excitement, and later by delusive ideas and violence.

She finally became unmanageable at home, and in 1867 she was taken to the McLean Asylum. The record book of the Asylum refers to the accident, and says that "sight was lost for some time after the accident. After she could read, the slightest pressure on the base of either eye made her blind. There was also paralysis of the auditory nerves, hearing returning first in one ear, then in the other. Speech was also impaired. She had been having the epileptic seizures for six years, and her general health had been poor. Sometimes she would have several during the twenty-four hours, then none for several days. Brown-Séquard had treated her, and for the year previous to admission, she had had no fits, but the general and mental condition had grown poorer. At admission seemed very feeble; speech was a little affected, there being a slight clipping of some words; the memory was weak; she had been excited at home, and turned against those about her." She remained at the asylum four months. During this time, she took forty grains of bromide of potassium three times daily, and had only one fit. At irregular but frequent intervals she had epileptic convulsions which were apt to be followed by excited and violent spells. She was subject to varied delusions, often those of persecution, which led her to repeated violent onslaughts. Convulsions were more marked on the right side, which gradually became weaker and weaker. During her medical supervision she was never known to shed a tear. The senses of smell and taste were almost, if not quite, lost.

During some lucid intervals she gave the following account of the aura which preceded the attacks: She says her vision was first affected, she saw a small rain-bow, which increased in size and seemed very beautiful, then this disappeared, and she felt a peculiar sensation in her abdomen in the region of the left ovary, which gradually grew higher and higher.

Another time she described an aura as "a face in a star, with one bright and one dull eye. The bright eye has numerous bright rays of light, like eye-lashes, projecting from it." After this vision comes, as described before, a pain in the epigastric region.

In September, 1884, I wrote: "Since

the above record, has had a variety of epileptic seizures, both *grand* and *petit mal*, and by day and night. Her memory and general intelligence have weakened considerably. She now lives much in the past, and often mistakes those about her for old friends. The right side is usually principally affected during a seizure, and her power of clear articulation has been permanently impaired. She finds it difficult to select the right word, and is much irritated if not understood. She has occasional days of great irritability and violence, when she savagely attacks her nurse."

In January, after an attack of *petit mal*, she saw and talked to an imaginary dog, heard him growl, and was afraid of him. The same day she was violent and attempted to bite, and bit her own hands. She seemed to think she was a dog herself, and later during the year, when much excited, she imitated the actions and noises of animals, principally dogs.

She also began to make imaginary letters and write during this month, sometimes for an hour at a time, slowly going through the motions, dotting the i's, crossing the t's, and so forth.

Altogether, during the year 1885, there had been one hundred and thirty characteristic seizures and forty-two attacks of violence, which were of undoubted epileptic origin. If we add both kinds together, we have a total of one hundred and seventy-two epileptic attacks, which was a much larger number than in any previous year, as before stated, though they had not been before so carefully observed and counted.

During the month of January, 1886, she had nine epileptic seizures and four attacks of violence. The last epileptic seizure on the 31st was very severe, lasting some time, and being followed by several attacks of vomiting and twitching of the right eye and side.

After this time she was not able to sit up, though placed on a sofa. She also swallowed with difficulty, the milk, etc., remaining in her throat. Most of the time she was in a stupor, breathing heavily, and sometimes with difficulty. She sank gradually, and died on February 12th.

The autopsy was made fifty-two hours after death by Dr. A. N. Blodgett, assisted by myself, and the report is as follows:—

The calvarium is thick and heavy, the frontal sinus is absent. The dura is much thickened, bearing a close resemblance in

some parts, especially over both anterior lobes, to a thick aponeurosis. It is unusually adherent to the pia, and when separated from the latter, is seen to present a marbled, or rather an embossed surface, as it is perceptibly thickened, and much more opaque in those parts which correspond to the intervals between the cerebral convolutions. The pia is everywhere quite vascular, and firmly adherent to the substance of the brain, from which it is difficult to separate it without injury to the cerebral tissues. About one hundred cc. of serous fluid is discharged from the cavity of the dura mater.

At a point corresponding to the cicatrix of the supra-orbital ridge is seen, on the inner surface of the skull, a surface about two cm. in diameter, which is the seat of a moderate, irregular hypertrophy, with three small, prominent bony protuberances extending about two mm. above the general surface of the bone around. From the posterior border of the crista Galli, and extending as far backward as the optic groove, is a surface three cm. long by fifteen mm. broad, to which the dura mater and the substance of the brain are so firmly adherent that they cannot be separated without laceration. The normal surface of the ethmoidal plate has been replaced by a dense and firm layer of bone, in which the perforations of the ethmoid are not preserved. The surface of the body of the sphenoid is raised above the normal level, and is thickly covered by small, elevated projections, to which portions of dura mater are inseparably attached. The entire surface is injected, and presents the appearances of chronic, progressive, osseous hypertrophy.

The vertebral arteries were the seat of extensive atheroma, and the inner coats were very loosely attached to the outer, so that they were easily separable. The entire basilar artery was the seat of the same atheromatous change, which had here intruded upon the inner surface of the vessel, so that its lumen was reduced in diameter at least one half. The same condition existed in both posterior communicating arteries, and was especially marked in the carotids of both sides. This was also the case in the anterior cerebrals, and the anterior communicating artery was found to be entirely closed, being reduced to the appearance of a fibrous cord. Thus the entire "Circle of Willis" was the seat of

extensive atheromatous disease, the lumen of the basilar artery was reduced one half by the encroachment of the same pathological process, and the walls of the vessel were much weakened. The calibre of the anterior communicating artery was obliterated at one point, so that there was no possibility of arterial supply to the opposite side of the brain through this channel. The anterior cerebral arteries were the seat of numerous small, aneurismal dilations, as were the middle cerebral arteries of both sides. This condition existed through the entire fissure of Sylvius, on each side, and was noticed also in the primary ramifications of the distributing branches.

The frontal convolutions were flattened, the gray matter was thinned upon its periphery, and the convolutions presented the appearance of being subject to considerable pressure.

The ventricles contain but the normal amount of fluid, the consistence of the brain-matter is normal, and there is no appearance of pathological changes in these parts of the brain. Sections were made through the thalamus optici and through the entire hemispheres, as well as through the cerebellum, without discovering any notable signs of disease. Portions of the choroid plexus showed circumscribed patches of grayish color, due, apparently, to fatty changes of limited area.

The autopsy seems to show that the original injury was followed by an acute meningitis, which degenerated into a chronic meningitis, and the enormous hypertrophy, which is apparent on inspecting the dura mater is conclusive evidence of this fact.

The insane condition, apart from the epileptic, could be accounted for by the flattening of the frontal convolution, the thinning of the gray matter upon its periphery, and the indications of pressure.

The osseous hypertrophy of the middle portion of the sphenoid and ethmoid bones was remarkable. There was extraordinary roughening, and the appearances were similar to those that might be found in an old fracture. Not that any fracture had ever existed, but it seemed as if the force of the original blow had been projected backward and centred at this point, resulting in chronic inflammation, both of the meninges and bone. And it further seemed that this inflammatory trouble and the extraordinary

growth and adhesion of the dura mater to the bone had gradually interfered with the circulation of the blood, through the circle of Willis, being in part the occasion of the thickening and occlusion of certain of its component vessels.

The nearness of the tempero-sphenoidal lobes may account for the loss (in part or in whole, it was not possible to determine which), of taste and smell, these lobes being given by Ferrier as the seat of these senses.

A further question which suggests itself is as to whether the occlusion of the anterior communicating artery and an evident degree of softening of the frontal convolutions had a bearing on the weakness of the right side?—*Boston Med. and Surg. Jour.*, July 8, 1886.

Hunter (Wm.) on the Fate of Extravasated Blood: an Experimental Research.—The object of research was primarily to determine the share taken by the liver, the spleen, and the bone marrow, in the disposal of extravasated blood. The method of research was the transfusion of large quantities of blood into the peritoneal cavity, the blood being, in all cases, derived from an animal of the same species. The animals used were the rabbit and dog.

1. *Local Fate.*—The part taken by cells in the local changes going on around extravasated blood is of the greatest importance; the cells being of two kinds—those of leucocyte, and those of connective-tissue origin.

2. The formation of blood-pigment from the red blood-corpuscles is mainly a "cellular" process, being effected through the agency of cells, either by enclosure of the corpuscles bodily within them, or by disintegration of the red corpuscles and then enclosure of their fragments.

3. In the process of so-called "organization" of blood-clot, both varieties of cells play an important part; but, while both leucocytes and connective-tissue cells are concerned in the disintegration of the red corpuscles, the former, in addition, effecting the removal of the *débris* from the seat of extravasation, the connective-tissue cells alone are concerned in the process of formation of fibrous tissue by which ultimately the clot becomes replaced.

11. *Absorption.*—4. The absorption of extravasated blood applies not only to the serum of the blood, but also to the great majority of the red corpuscles which re-

main unentangled amidst coagula or the surrounding tissues.

5. This absorption is extremely rapid, both from the subcutaneous tissues, but especially from the larger serous cavities.

6. In the case of peritoneal cavity, the absorption of the serum and red blood-corpuscles is effected almost entirely through the lymphatics of the diaphragm.

7. Under such circumstances, the increase in the number of corpuscles within the circulation is observable one hour after the injection, and steadily rises until it reaches a maximum about the second or third day, the time varying according to the quantity injected.

8. Extravasation *per se* does not affect the vitality of the red blood-corpuscles; if absorbed back into the circulation within a day or two, they continue to live as before.

9. Their longest duration of life under such circumstances (in the rabbit) varies from two to four weeks, this duration applying naturally to only a few of them.

10. The probable life-duration of the red blood-corpuscle in man is about three weeks.

III. *Ultimate Fate of absorbed Blood-corpuscles.*—11. The three great seats of blood-destruction within the body, under pathological as under physiological conditions, are: The liver, the spleen, and the bone-marrow.

12. The nature of the process of destruction in the liver, differs essentially from that in the spleen and bone-marrow.

13. In the latter, the process of blood-destruction is mainly a cellular one, comparable in all respects with, although much more rapid and complete than, the similar processes taking place locally at the seat of extravasation; in the former, the destruction is much more rapid than in the spleen and bone-marrow.

14. After increased destruction of blood-corpuscles within the body, the local evidences obtainable are—in the case of the liver, increased richness of its substance in iron and the presence of granules containing free iron within the liver-cells; in the case of the spleen and bone-marrow, increase in the amount of pigment containing free iron found within these organs.

15. In health, a definite relation is maintained between the amount of blood-destruction which takes place in the liver on the one hand, and in the spleen and bone-marrow on the other.

16. Any disturbance of this relation on the part of the liver is of much greater consequence than on the part of the spleen or bone-marrow.

17. The former is, in all probability, the pathological change which lies at the root of progressive pernicious anæmia; as the latter is the probable cause of the anæmia of leucocythæmia.

18. The rapidity with which blood-corpuscles introduced into the circulation become destroyed is very great, a number equivalent to about 4 or 5 per cent. of the animal's own blood being destroyed daily.

19. The small quantity of blood transfusable into the organism in the case of a man is therefore entirely removed from the body in a few days at most, probably not longer than three or four.

20. Transfusion of blood in the human subject, in cases of pernicious anæmia, with the object of increasing the number of corpuscles, is devoid of all physiological basis, and is simply adding fuel to the flame, since the fault in this disease is not one of defective formation of blood-corpuscles, but one of excessive destruction of those of already present.—*Brit. Med. Jour.*, July 17, 1886.

Coates (G.) on Temporary Dilatation of the Heart Occurring during the Course of Acute Disease.—The object of this paper is to prove that dilatation of the heart may occur during acute disease; that the symptoms produced by it may be very grave; or that, on the other hand, they may be so slight, that it may remain undetected unless the chest be carefully examined every day. Also, that this dilatation, in many cases at least, is temporary, disappearing entirely as the patient recovers his health and strength.

The cause of this dilatation may be considered to be an intercurrent attack of myocarditis, as is often the case in rheumatic fever; but what my cases seem to show is, that dilatation may occur when there is no reason to suspect the presence of myocarditis.

The cause that seems to me to be the most probable is muscular debility and fatigue; *i. e.*, that in some individuals, during acute disease, the muscular wall of the heart is not strong enough to do its work, and consequently the chambers dilate under the strain. This view of the case makes the dilatation occurring almost suddenly in acute disease similar in kind to

the slow dilatation so often met with in forms of chronic illness, whether this be a disease of the valves of the heart or of the kidneys and blood-vessels, or a changed condition of the blood.

In æmia we constantly meet with dilatation of the heart not always compensated by hypertrophy, showing that the heart when poorly fed is not equal to its work, and part of the breathlessness and palpitation met with in anæmia is due to this cause. Again, from a similar condition of the blood occurring normally in pregnancy, a slight degree of dilatation and hypertrophy of the heart is almost a physiological and normal condition during this state. In valvular disease of the heart, and to some extent in Bright's disease, the answer to the question whether the heart will become hypertrophied to meet the strain, or whether it will yield to it and dilate, depends partly upon the rate at which the increase of work to be performed by the heart is thrown upon it, and partly upon the age and general powers of the patient; and here again those curious factors so difficult to explain, known as vitality and nervous energy, come into play. In all these cases we find that the ratio between the work done by the heart and the nutrition it receives is increased, and we know that the greater the increase the more rapid will be dilatation, and the graver the symptoms; whilst in cases where the general state of nutrition of the patient is good, considerable valvular lesion may develop, or great vascular tension may become constant, and in either case the cardiac muscle may be called upon to perform greatly increased work, without dilatation ensuing, provided that this increase of work be thrown upon the heart sufficiently slowly for its nutrition to be kept up, and its muscular walls to become hypertrophied. Or, in other words, we may state it as a physiological law, that if (the nutrition being constant) the work demanded from any chamber of the heart be so increased, or (the work being constant) the nutrition of the muscular walls of the chamber be so diminished that the chamber cannot complete its work by ever so small a fraction, then the chamber must necessarily dilate.

In cases of acute disease attended with fever, we have conditions in which *a priori* we might expect to find dilatation of the heart occur, and especially is this the case if at the same time the disease is of such a

nature as to produce any extra hindrance to the circulation; *e. g.*, pneumonia or acute rheumatism. During fever the pulse rate is almost always increased, sometimes to a very considerable extent, and consequently the time the heart muscle obtains for rest and nutrition between the beats is shortened. The activity of the processes of digestion, nutrition, and repair is diminished; whilst wasting of the tissues, especially of the adipose and muscular, goes on, and this sometimes to a very advanced degree. Diminution of the muscular strength of the patient is usually one of the first symptoms, and sometimes he lies almost incapable of any except the very slightest muscular action. In these cases the cardiac muscle shares the same lot as the voluntary muscles, but usually to a less degree; and if the temperature has continued at a high level for several days, the enervating effect of this high temperature on the contractile powers of its fibres and the possibility of granular degeneration setting in must also be taken into account.

Three of the cases of dilatation cited occurred in diseases in which great collapse is common. One case was an instance of a rare form of fever which sometimes follows mumps, and in which the occurrence of great, and sometimes extreme, collapse is a marked feature. Here it was associated with orchitis. Two were cases of pneumonia, in which also collapse is often met with. Moreover, in three cases out of the four, the dilatation came on about the time when the temperature fell, *i. e.*, just at the time when stimulants are so often required, and when so many cases of pneumonia prove fatal in aged or weakly subjects.

So far I have no data as to the relative frequency with which simple dilatation of the heart takes place in acute disease, but I believe it probable that it is fairly frequent, and that much light would be thrown upon the nature of collapse in acute disease if, in all cases, the size of the heart was carefully determined from day to day.—*The Practitioner*, July, 1886.

Wolff (L.) on Saccharin.—Under this name, a product of the coal-tar derivatives has been recently introduced for medical use. It was first produced by Dr. C. Fahlberg, in 1879, who described it, together with Prof. Ira Remsen, in vol. i., page 426, of the *Amer. Chem. Journ.*

To understand the chemistry of saccharin

it is necessary to enter somewhat into the consideration of the aromatic group of hydrocarbons from which it is derived.

This series is known by the general formula of C_nH_{2n-6} ; *i. e.*, every member of the group contains for the carbon atoms twice as many of hydrogen, less six. The starting point of this is benzene, C_6H_6 , derived by distillation from coal-tar, and the second member toluene, C_7H_8 , or methyl benzene, also written as $C_6H_5CH_3$, another distillate from that source.

Toluene treated with sulphuric acid, H_2SO_4 , so that the H adjoining the CH_3 in the hydrocarbon chain will be substituted by SO_3H , yields orthotoluenesulphonic acid, expressed by the formula $C_6H_4CH_3SO_3H$.

This, converted into orthotoluenesulphochloride, $C_6H_4CH_3SO_2Cl$, and treated with ammonia, NH_3 , gives orthotoluenesulphamide, $C_6H_4CH_3SO_2NH_2$.

As toluene, by oxidation, is changed into benzoic acid, so is the toluenesulphamide changed when oxidized with potassic permanganate, $KMnO_4$, into benzoic sulphimide, or saccharin, and orthosulphobenzate of potassium. This mixture, when treated with hydrochloric acid, HCl , leaves a precipitate of benzoic sulphimide, $C_6H_4COSO_2NH$.

This benzoic sulphimide, if treated with water, gives orthosulphaminbenzoic acid, $C_6H_4CO_2HSO_2NH_2$, so that saccharin may be therefore properly termed an anhydro-orthosulphaminbenzoic acid.

Saccharin, prepared in this manner, is a white powder, composed of irregular crystals. It is very slightly soluble in water, not quite half per cent. dissolving at ordinary temperatures, while it dissolves readily in warm and boiling water, from which it crystallizes out on cooling. As forming sulphaminbenzoic acid when so dissolved, it has an acid reaction. It is readily soluble in alcohol and ether. Its salts, with the hydrates or carbonates of the alkaline metals, are readily soluble, but saccharin is separated from out such solutions on the addition of acids. Heated to $220^\circ C.$, it melts, and is partially decomposed, and, when fused with potassic hydrate, it forms salicylic acid. Its most remarkable property, and that which makes it of advantage to medicine, consists in its intense sweet taste, which is so great that one grain, if dissolved and neutralized in about ten pints of water (1 to 70,000), can

still be tasted, while one grain of cane-sugar can only be detected at the utmost when dissolved in half an ounce of water, so that saccharin is about three hundred times sweeter than sugar, the taste of which it represents entirely in quality.

Professor Mosso has recently studied the physiological effects of saccharin, and published the results in the *Archivo per le Scienze Mediche*, vol. ix., 1886. According to his researches, it is not, like benzoic or salicylic acids, excreted in the urine as hippuric or salicyluric acid, but is found therein in the same chemical condition as ingested. Frogs can be kept indefinitely alive in a neutralized watery solution of saccharin. When injected under the skin, the urine tastes sweet within fifteen minutes, and continues so for several days. Experiments with dogs, when saccharin is given in large doses, developed no impairment of nutrition, nor was, during its use, the amount of urea eliminated either increased or diminished. The urine of animals fed with saccharin is less prone to putrefaction. The amount of chlorides in the urine is increased during its use, while the phosphates and sulphates remain normal.

Animals on full diet, along with saccharin, increase in weight. On man, doses of 5 grammes (75 grs.) produce no abnormal effect, and the appetite is stated to be increased during its use. The uropoietic ways are the only eliminative tract for saccharin, which makes itself manifest in the urine half an hour after its ingestion. It may be summed up, therefore, that saccharin is not possessed of any toxic or deleterious effect on the human organism.

In therapeutics, this new substance is destined principally as a corrective for the taste of other substances, and as a condiment for the use of persons suffering from diabetes mellitus, and those under treatment for the reduction of obesity.

In several experiments that I have made, I found it to correct the bitter taste of quinine materially, if one part of it is added to two parts of the latter. As its solution forms an acid, which readily forms salts with bases, it can be utilized to combine directly with alkaloidal quinine to form a quinine sulphaminbenzoate.

In fermentative disturbances of the digestive tract, when sugar and carbohydrates are contraindicated, it may be used as a corrective for the nauseant taste of other

remedies, especially so as it has decided antiseptic powers. It may also be used as a condiment for milk and other nutrients to be taken. To improve the taste of elixirs, wines, etc., it seems especially fitted, as they will, under such conditions, have the very desirable property of not deranging the stomach. The coffee and tea of diabetic patients may be sweetened with a grain or two of saccharin, and it may also be added with advantage to jellies and other foods for such patients.

That saccharin has a place in medicine and in the dietary list is undoubted, and that it is innocent in its effect commends it especially to a trial by physicians.—*Therapeutic Gazette*, July 15, 1886.

Jackson (E.) on Homatropin Hydrobromite—its Value as a Mydriatic.

—Homatropin is an efficient, reliable mydriatic. Still, many who are engaged in the practice of ophthalmology do not so regard it. It is true of any mydriatic that when not applied in sufficient quantity, when the applications have not been repeated often enough, or when too long a time or too short a time is suffered to elapse after its application, the accommodation is found incompletely paralyzed. And, as of other mydriatics, this is true of homatropin. It is also true that the dose of homatropin, and the time of its maximum effect, differ from the dose and the time of other mydriatics. Hence, to use homatropin as we use atropin or duboisin is unsatisfactory. It would, for different reasons, be even more unsatisfactory to use the latter drugs as homatropin should be used.

Strength of solution.—I have always used homatropin as the hydrobromate, dissolved in distilled water. A two and a half per cent. solution (1 in 40) I have used habitually for the last four years, and still find it most satisfactory. For simply dilating the pupil a strength of 1 to 500, or a grain to one ounce, is commonly sufficient; and for purposes of diagnosis it should be relied on to the exclusion of stronger solutions, or those of atropin, duboisin, daturin, or hyoscyamin in all persons who, having passed the age of fifty, have lost most of the power of accommodation, and are liable to senile glaucoma.

Repeated instillations must be used where it is desired to secure complete paralysis of accommodation.

The instillations must be repeated at short

intervals to get the full mydriatic effect—say from five to ten minutes apart.

The mydriasis produced by homatropin, used as above indicated, closely resembles that produced by atropin, duboisin, daturin, or hyoscyamin, except that it is of shorter duration. Enlargement of the pupil and paresis of accommodation begin and end together. The shortest period between the first instillation and the first noticeable change in the pupil was seven minutes, the longest was twenty-eight minutes. Usually it was between ten and twenty minutes. The shortest period between the last instillation and complete recovery was twenty-three hours; the longest, less than ninety-six hours. To determine the state of refraction in young persons, the second hour after completing the cumulative instillations is the best time.

It is not perfectly easy to determine when the power of accommodation is in complete abeyance. Only careful and somewhat prolonged testing will make this certain. To decide the point I have used three tests: First, is there complete inability to vary the distance at which fine print can be read through convex glasses? Second, do weak (quarter or half dioptric) convex and concave lenses, added to the correcting lens, equally impair distant vision? Third, *is there no tendency to increased refractive power (lower H., higher M.) after prolonged subjective tests in a good light?* The first I employed in the earlier cases, but have found not entirely satisfactory, because I could not get fine print of the right size and clearness. And there is also the objection that letters seen at a variable distance should be of a variable size. The others have been used in all cases, the third being regarded as most conclusive. I cannot claim that in all cases in which I have used homatropin I had absolute paralysis of accommodation. All I claim is that a two per cent., or stronger, solution, used in the way proper to it, paralyzes the accommodation just as certainly and thoroughly as a one per cent. solution of atropin or a one-half per cent. solution of duboisin used in the most effective manner.

The general action of homatropin.—Solutions of homatropin of ordinary strength produce little if any unpleasant sensation when applied to the conjunctiva than does distilled water. Five and ten per cent. solutions, especially the latter, cause a notable

smarting. This has not, however, in any case lasted as much as five minutes. On other mucous membranes no such sensation is produced. I have never had an opportunity of seeing a conjunctivitis induced or aggravated by the use of any mydriatic. Most writers on this subject mention the occurrence of "conjunctival irritation" after the use of homatropin. The phenomenon referred to very generally attends the instillation of the drug; but I certainly cannot regard it as a conjunctival irritation. It is something entirely different from what occurs after an irritant is applied to the conjunctiva.

The smarting, if it amounts to that, caused by the instillation, quickly subsides, the appearance of the conjunctiva remaining normal; but after three, five, or ten minutes the normal whiteness of the sclerotic is interrupted by an increased vascularity. This becomes more and more marked, reaches its height about the time the pupil has fairly begun to dilate, remains for a little while stationary, then gradually subsides; so that by the time the mydriatic effect of the drug has reached or just passed the maximum, unless the instillations have been continued, the appearance of the sclerotic has again become normal. This process is entirely unattended by smarting, or any other sensation to be connected with it. The vessels of the palpebral conjunctiva are not noticeably involved. Those of the ocular conjunctiva are somewhat dilated, but the *reddening of the eye is mainly due to the enlargement of the minute vessels that form a rosy zone around the cornea, the straight vessels, and the deeper vessels of the sclerotic.* This hyperæmia is not due to the distilled water which has been used to convey the homatropin to the tissues; for distilled water alone does not produce the least hyperæmia in the normal eye. It is not due to acidity of the solution, for the hyperæmia from that cause is entirely different both in time of appearance and in the non-involvement of the deeper vessels. Moreover, the very slight acidity of the preparations I have used was never sufficient to cause hyperæmia, well-prepared litmus paper being a much more delicate test for acids than increased vascularity of the conjunctiva. I believe this hyperæmia to be due to a specific influence of the drug on those vessels through which, in comparatively concentrated solution, it makes its way to the general circulation.

This effect is not, however, peculiar to homatropin; the same thing occurs after instillations of atropin, duboisin, and daturin, and doubtless, though this I have not tested, after hyoscyamin. That it should not have been observed with reference to these latter, is to be accounted for by the fact that two per cent. solutions of them, or solutions approaching that strength, are not often used in normal eyes. It is not necessary to comment here upon the influence these observations may have upon theories of the action of mydriatics in ocular inflammations.

Placed on the tongue, homatropin causes a decided bitter taste, which, with strong solutions, lasts for some ten minutes or longer. This taste is very generally noticed by the patient when the drug is at all freely applied in the conjunctival sac. It is then doubtless caused by the portion which makes its way through the lachrymal passage to the mouth. That homatropin produces no dryness or irritation of the mouth or throat, is confirmed by my experience. Very often the direct question was asked, Was any sensation of the kind experienced? In every case but one it was answered negatively. In the exceptional case the patient had previously used atropin, and hastened to say that it was entirely different from the sensations produced by that drug, and of his own accord offered the supposition that the feeling he had experienced was probably not due to the homatropin, but to other causes.

The local effects produced by the hypodermatic injection of homatropin are of especial interest when considered in connection with the hyperæmia it produces in the eye. For purposes of comparison, it may be well to bear in mind that the hypodermatic injection of distilled water causes slight smarting in the tract of the wound, and if the injection is large and rapidly thrown in, there may be a sharp pain felt at the point of puncture; which disappears, as pressure is removed from the piston, to return when the fluid is again urged forward, but ceases finally within a minute or two after the completion of the injection. Dependent on the situation and size of the injection, there may be some aching in the part. This lasts but a few minutes. There may also be some numbness, which, in one case, the injection being some twenty minims and placed near the course of the ulnar nerve, extended from the elbow to the tips

of the little and ring fingers. But these symptoms all disappear within an hour, leaving only a minute red point to mark the seat of injection; and this, too, has usually disappeared two or three days later.

Action upon the nervous system.—When a two-per-cent. solution is used so as to get its cumulative effect upon both eyes at once, the total amount of the drug placed in the two conjunctival sacs may be as much as one eighth to one fourth of a grain. When using the drug in this way I have nearly always made special inquiry for symptoms referable to it, and have almost invariably elicited negative replies. The same absence of subjective symptoms attended the taking of one eighth or one sixth of a grain on the empty stomach. In three instances, however, after pretty liberal use of the drug in both eyes, patients spoke of feeling a little "strange" or "intoxicated"; but neither their speech nor movements gave any objective evidence of such a condition, and I was inclined to attach no importance to their statements, opposed as they were to those of a great majority of the persons subjected to such influence, until the following occurrence convinced me that it was not unlikely that such statements were accurate. By a mistake as to the graduation of a hypodermatic syringe, I received fully one fourth of a grain of homatropin in the subcutaneous tissue of the forearm.

EXPERIMENT.—This occurred at 8.45 P.M., supper had been eaten at 7 P.M., and my pulse was at the time 64 while sitting, and 72 when standing. Power of accommodation = 9 dioptrics; pupils, facing the full light of an argand burner, 3 mm. in diameter.

8.50 no change.

8.55 pulse 60 and stronger.

9.00 pulse 66, a very decided sense of intoxication.

9.03 pupils 4 mm. in diameter, facing the light as before.

9.05 pulse 68.

9.10 the power of accommodation is so impaired that it is impossible to see clearly any thing within twelve inches of the eye. Convergence of the visual axes for any point within that distance is also impossible. There is also a sense of difficulty in making any coördinated ocular movements, although no diplopia is noticed. Pupils 4 mm. in diameter.

9.15 pulse 64, fuller than before taking the drug.

9.25 pulse 66, the same sense of intoxication, pupils, and power of accommodation and convergence as at 9.10.

9.35 and 9.45 pulse 66.

9.55 pulse 64, sense of intoxication and difficulty of accommodation and convergence slightly diminished.

10.05 pulse 60, pupils smaller.

10.15 pulse 62. Going out of doors there is some little difficulty in walking, a distinct tendency to drag the toes. Recovery now proceeded rapidly.

11.15 pulse 58, pupils, accommodation, and ocular movements normal; a very slight headache.

The intoxication much resembled that produced by alcohol. It was peculiar in that there was a sense of great delay in the succession of ideas. There was no feeling of depression, rather of comfort, satisfaction, and indisposition to exertion.

The effects upon the pupil and accommodation were so transient, when compared with the same effects produced by a local application of the drug, and the dilatation of the pupil was so insignificant, as compared with the impairment of accommodation, that I cannot regard them as due to any local action of the drug reaching the eye through the circulation, but rather with the interference with the action of other ocular muscles, as due to the influence of the drug upon special parts of the central nervous system.

Influence upon the circulation.—Ringer found, with reference to the action of the heart, that "homatropin slows the beats and renders them irregular in force and rhythm." In my experience a decrease in the pulse-rate is the most constant symptom produced. Next to this is an increase in the fulness and force of the radial pulse. In but three out of seventy cases was there any certain disturbance of rhythm. In two of these there was some irregularity of rhythm to start with, which became much more marked after the use of the drug. In the third, irregularity of action was noticed only after the employment of this drug. The increase in the force is noticeable, mainly within thirty to sixty minutes after the application of the homatropin. Later there is a certain diminution of force, but that the pulsations became weaker than before the drug was taken I think is very uncommon. I could not satisfy myself that it occurred in any case. In one patient with mitral regurgitation, but fair circula-

tion, homatropin seemed to cause a marked improvement in the strength of the pulse, which improvement lasted some hours.

Summary.—Homatropin applied in sufficient quantity by cumulative instillation is a perfectly reliable mydriatic in all cases. Locally, it causes hyperæmia, and affects nutrition, when in concentrated solution, so profoundly as to cause tissue death. In ordinary doses ($\frac{1}{100}$ to $\frac{1}{50}$ of a grain) it slows the pulse, makes it fuller and perhaps irregular in rhythm. In large doses ($\frac{1}{2}$ of a grain and upward) administered hypodermatically it causes intoxication.—*Med. News*, July 24, 1886.

THERAPEUTICS.

Lépine (R.) on Salol.—Nencki (of Berne) has effected the combination of salicylic acid with phenol. A molecule of water is given up and the new body thus obtained, an ether, is called *Salol*. It contains about 60 parts of salicylic acid and 40 parts of phenol by weight. It is a solid white body, crystallizing in very fine crystals, unctuous to the touch, very soluble in alcohol, ether, etc., but not in water. Hence it is almost tasteless, and has no decided odor. It is decomposed by alkalies.

According to Sahli (of Berne), salol is useful in all cases where usually the salicylate of soda is employed, which it has an advantage over in that it is tasteless, does not irritate, nor is it soluble in the stomach. The pancreatic juice acts on it, and it is split up in the duodenum into active and soluble substances. Sahli recommends it not only in rheumatism, pyrexias, neuralgias, diabetes, etc., but also in enteritis, cholera, and typhoid fever. A special indication, he says, is an intestinal catarrh dependent on decomposition. He has seen it quiet the fever of dysentery and render stools solid. Powdered or in oleaginous solution it has antiseptic powers, rendering it useful in chancres, ozæna, otorrhœa, etc., and emulsioned in water as an injection for gonorrhœa, and in affections of the mouth. Lépine finds daily doses of from 3 i–ii well borne, and that it relieves the fever and pains of rheumatism and neuralgic pains much better than salicylic acid. It causes hardly any tinnitus aurium, and the author has given 3 v in two days without producing any symptoms of carbolic poisoning. In typhoid fever it

lowers the temperature, but not in as marked a degree as antipyrine.—*Lyon Méd.*, July 11, 1886.

Murrell on the Influence of Pure Terebene on Fermentation.—In a lecture recently delivered at the Westminster Hospital, Dr. Murrell referred to the power exerted by pure terebene in arresting fermentation, and gave the details of some experiments which he had made.

A 2% solution he found prevented and arrested fermentation in a hay infusion. A $\frac{1}{10}$ % solution delayed but did not prevent fermentation. A $\frac{1}{4}$ % delayed and almost prevented the fermentation of yeast. Lactic-acid fermentation was affected in the same way.—*Br. Med. Jour.*, July 24, 1886.

Coutte on the Thermic Action of Cold Water.—After long study of the subject the author concludes :

1. Every application of cold water brings on a final and permanent refrigeration of the body.

2. The central temperature oscillates first upwards during the contact with the cold water, then downwards to a certain minimum below the normal and finally it very slowly regains the normal.

3. The rise in temperature varies little, and remains about .2° C. whatever the kind, duration, and mode of application of the cold water.

4. The fall of temperature, on the contrary, is more rapid and pronounced as the contact with the water is prolonged and its temperature lower.

5. The force of the stream has little or no influence on the quantity or quality of these phenomena.

6. Reactional muscular exercise increases the rapidity of the fall.

7. Tepid applications do not change the general temperature of the body, while hot applications elevate the temperature of the body in proportion to their heat and their length.

8. All these changes are more or less transitory and followed by a vital process which tends to render the temperature of the body normal.

9. All these changes are purely physical,—attempts to establish an equilibrium between the water and the skin.

10. The vaso-motor phenomena produced by the cold water on the skin are of secondary importance. It is in this way the initial rise of central temperature is caused by disturbance of the circulation

between the centre and the periphery, while the fall of the central temperature marks the re-establishment of the peripheral circulation.

11. The *vital reaction* which marks the limit of all change in the general temperature of the body is of great importance from a therapeutic point of view. It is often the aim and always the result of applications of water.

A cold shower after a little, raises the temperature of the body by increasing tissue changes and general nutrition. The hot douche checks nutrition to allow the organism to cool off a little.

12. By repetition of these vital reactions general therapeutic results can be obtained—an increase of strength and nutritive functions by cold water and their diminution by hot water.

13. Reaction should take place in twenty-five minutes.

14. Muscular exercise, preparatory and after reaction, should never be omitted. It prevents too prolonged stagnation of the blood in the viscera, and heightens the physiological and therapeutic utility of the application.

15. The douche must not be prolonged to cause a second chill; as a general rule, thirty seconds to one minute is long enough.

16. Tepid or hot water should not be used in debility with impaired nutrition.—*Lyon Méd.*, July 11, 1886.

Fisher (H.) on Quinine in Typhoid Fever.—In the treatment of typhoid fever, as in every disease of possible gravity, we try to approach the bedside with no preconceived ideas as to diagnosis or treatment. On each separate visit we would let the clinical facts alone account for the day's medication, keeping steadily in view Thomas Watson's great injunction, "*the tendency to death.*"

Proceeding thus, we have found it abundantly profitable to give veratrum and aconite, and always associated with an opiate, mostly morphine, to procure rest and calm an excited circulation; cold alkaline baths and frequent changes of linen, preferably administered (the bath) during the exacerbation, for general hygiene; "sweet milk," with or without whiskey for feed, and *quinine* in emphatic doses whenever the temperature produces notable discomfort, or threatens to produce dangerous complications in the run of the

fever. During the many years we have been giving it in large doses in typhoid fever, and with the most gratifying results, we have not found *any* good in the use of it in three- or four-grain doses four times a day. Nor do we use it at all until the temperature passes 102° , and shows a plain tendency to go higher. But when the exacerbations, daily, in general, mount up to 103° or 104° , to the manifest distress of the patient and the production of visceral congestions, fraught with structural changes of a vital nature, to say nothing of the tissue waste inseparable from such a "fast life," we give a capsule containing eight to ten grains of quinine every four hours, beginning early in the morning and repeating till three are taken—then discontinuing until the following morning, and so on, with more or less variation, suited to difference in constitution and environment, until the temperature stands again at a figure compatible with the patient's comfort and safety. The happiest results have followed, and no one is more cognizant of the source of relief than the taker himself, who, as such, is apt to be in pretty good possession of his faculties. A temperature that may be followed for many days without serious injury to the organism in one case will jeopardize life in the next.—*N. Y. Med. Rec.*, July 10, 1886.

Macgregor (A. D.) on the Value of Boric Acid in Various Conditions of the Mouth.—In *simple catarrhal stomatitis*, a mouth-wash, containing from 10 to 15 grains to the fluid ounce, speedily cures the condition, and exercises the same beneficial influence in the *ulcerative* form, though there, in addition to the rinsing of the mouth, a local application, in the form of the powder or pigment, should be made to the individual follicular ulcers. The powder simply consists of finely-powdered boric acid, mixed in various proportions with starch; the pigment is a solution of boric acid in glycerine (1 in 4 or 5). In both cases the addition of chlorate of potassium is advantageous.

Nothing I know of is at once so rapid and so efficient in the treatment of *parasitic stomatitis* or *thrush* as this remedy. The youngest children do not object to its application, and occasionally you have to caution against its too frequent use. The *oidium albicans* quickly succumbs to its influence. I am well aware of the great value of nitrate of silver in many of these condi-

tions; but I am also alive to its extremely disagreeable and persistent taste and the dislike which precocious children at once take to it. For thrush in children I especially recommend boric acid, either as a mouth-pigment or as a confection.

In *pharyngitis* and *relaxed conditions of the throat*, a gargle containing boric acid and glycerine, with either tannic acid or alum in addition, ought not to be forgotten.

Let me allude to another condition in which I have found combinations of this substance helpful and grateful to the patient. I refer to the conditions in which we frequently find the mouth, tongue, and teeth in severe cases of typhoid fever. The mouth is hot; the lips dry, cracked, and glued to the sordes-covered teeth by inspissated mucus and saliva; the tongue dry, or even glazed and hard, brown or black, crusted with a fetid fur. Under such circumstances, a pigment containing boric acid (30 grains), chlorate of potassium (20 grains), lemon-juice (5 fluid drachms), and glycerine (3 fluid drachms), yields very comforting results. When the teeth are well rubbed with this, the sordes quickly and easily become detached; little harm will follow from the acid present. The boric acid attacks the masses of bacilli and bacteria; the chlorate of potassium cools and soothes the mucous membrane; the glycerine and lemon-juice moisten the parts and aid the salivary secretion. I consider this application well worth a trial. In this connection nothing can displace boric acid. For years I have used the following powder and can recommend it. Boric acid, finely powdered, 40 grs.; chlorate of potassium, 3 ss; powdered guaiacum, 20 grs.; prepared chalk, 3 i; powdered carbonate of magnesia, to 3 i; otto of roses, half a drop. The boric acid in solution gets between the teeth and the edges of the gums, and there it discharges its antiseptic functions; the chlorate and guaiacum contribute their quota to the benefit of the gums and mucous membrane generally; the chalk is the insoluble powder to detach the particles of tartar which may be present, and the magnesia the more soluble soft powder which cannot harm the softest enamel.—*Br. Med. Jour.*, July 10, 1886.

Sawyer (A.) on the Therapeutics of Subnitrate of Bismuth and Asclepia Tuberosa.—One, and I believe that it is the *principal*, therapeutic effect, lies in its power to coagulate mucus, which may be

easily demonstrated by the same process that led to the discovery of this most important property. For a country physician I have treated a large number of cases of nasal catarrh and various diseases of the throat. After washing out the nose with a solution of subnitrate of bismuth, I discovered that the mucus it contained separated from the water in a coagulable mass, and that the membrane was in a most admirable condition for application of the local remedies indicated. So also in post-nasal disease where the pharyngeal follicle becomes involved and exudes a tenacious glairy mucus, which may be moved backward and forth but resists all ordinary means for removal; in such cases the dry powder dusted upon it will in a short time coagulate the mucus and put the parts in a condition for the reception of those remedies which while it was so covered protected the parts as effectually as if they were hermetically sealed.

In the summer complaint of children as well as in gastric catarrh, where the follicles of the stomach exude the same character of mucus we meet with in nasal catarrh and pharyngeal troubles, the subnitrate in full doses, fifteen to thirty minutes before, with pepsin during or immediately after eating, will usually in acute as well as chronic cases effect a cure, provided that you remove the cause for this, as I term it, follicular gastritis.

Combined with tannin and laudanum as an injection, it *at once* relieves the tenesmus of dysentery; and since I have commenced its use as mentioned, with sulphate of magnesia, ipecac, and opium, I have never lost a case.

As an application in the form of a powder or ointment in the treatment of old sores, ulcers, and moist eczema, it will, in most cases, act charmingly. In leucorrhœa, to cleanse the parts, it has no equal.

Asclepia Tuberosa.—In the tormina of dysentery, so distressing to the patient, the fluid extract of *asclepias tuberosa* in teaspoonful doses every two hours, or a warm infusion of the fresh root, acts like a charm; and with one trial few will dispense with its services to relieve this condition.

In the so-called "bilious" and other forms of colic, either alone or combined with an equal portion of *dioscorea villosa* and a little morphine or chloroform, it acts charmingly; often one, seldom more than two doses being necessary.

The pain consequent on acute muscular rheumatism will be relieved in from six to eight hours by its administration in drachm doses every two hours.

It is in the severe pains of pneumonia that I use it most frequently, and I assure you that when administered as before mentioned, it will almost invariably give relief in from eight to twelve hours, and this condition can be maintained by ten-drop doses every two hours, with such other treatment as is deemed necessary to meet the indications.

In those cases of fever of a continued type, frequently met with in young children as well as adults, which resist the usual antipyretic treatment, I have found it, in small and frequently repeated doses, to act promptly and efficiently, by a marked reduction in the temperature and pulse and a moist skin, resulting in the long-needed quiet sleep, thus seemingly overcoming a condition which rendered the usual antipyretic list valueless. *Asclepia tuberosa* is certainly a sudorific, anodyne, and occasionally, though an idiosyncrasy, an emetic. —*Four. Am. Med. Ass'n*, July 31, 1886.

Memminger (A.) on Bright's Disease of the Kidneys Successfully Treated with Chloride of Sodium.

The patient, being brought as rapidly as possible under the influence of chloride of sodium, is kept there by gradually decreased doses. At first I order ten-grain doses of the chloride, contained in gelatin capsules, three times a day, and, if the state of the case allows, by preference one hour after or before meals. I generally reverse each day the order of giving; thus, if one day the capsules are given before meals, the next day they are prescribed after. If the patient complains of no nausea, I allow him to keep up, but at the slightest intimation of a sick stomach I order him immediately to assume the recumbent posture, and there remain for an hour or so, after which this temporary ill-feeling always subsides. The second day of treatment I increase the dose to two capsules three times a day, and every other day I increase by one capsule until the patient is taking five capsules three times a day. About this time the good effects of the treatment will be apparent, not only from the improved subjective and objective symptoms of the patient, but from the improved condition of his urine. Albumin will, of course, at this period be found still

in abundance—that is, if the case is at all a grave one; even here, however, if you institute a gravimetric examination, you will find a decided improvement, not so much in the absolute as in the relative decrease in albumin.

At this juncture I order the chloride to be diminished in quantity, and I have so far found that, after the system has thus been brought fully under its influence, it requires but two capsules, three times a day, to keep up the desired effect. If at this stage of the case there is any decided nausea or disinclination to take the medicine, I stop the same, and during the interval give one or two alterative pills, after which I proceed again to a resumption of the chloride. Should albumin again increase in the urine, urea and chlorides diminishing, I immediately resort to large doses, thus bringing the patient once more under the influence of the chloride, after which I again reduce.

The effects of this treatment, as I have said, are most marked. Headache, œdema, low spirits, general weakness, and anæmia give way to just a reverse order of things, and the patient, who a few days before was most gloomy and desponding, is now full of life and hope. The albumin decreases, the urea increases, and the chlorides increase to a very marked extent. I would urge a thorough trial of this therapeutic agent by the profession on the following grounds:

1. It is harmless if properly administered.

2. Its effects are comparatively uniform, provided it is given for a sufficient time; that I have so far used it only in chronic cases of no long standing does not in my opinion militate against its beneficial effects, for, even should it not be found a cure for Bright's disease, may it not become an important article in our medical armamentarium; indeed, if only an ameliorator of man's sufferings and a prolonger of his life?

3. It may be employed as an adjunct to all recognized methods of treatment without detriment to the patient.—*N. Y. Med. Jour.*, July 31, 1886.

Pattee (A. F.) on Potassium Chloride.—The potassium chloride does not interfere with the normal amount of sodium chloride in the fluids or solids of the body.

That potassium chloride is essential for the development of the animal tissues is shown by the fact that food which in itself

is not sufficiently nutritious, such as over-boiled meat, recovers its properties on the addition of potassium chloride and a small portion of sodium chloride (Binz). Experiments with plants show also how necessary potassium is for cell nutrition.

For many years I have used potassium chloride, and find it a valuable medicine either alone or in combination with other medicines. I have used it in many cases of anæmia after other well-known treatment had failed to do good, with the most happy results. The dose usually given was five grains every three hours in a wineglass of water, twenty grains to two drachms being given in a day. In the commencing stage of cirrhosis of the liver due to alcoholic excess it has apparently been of benefit.

Exudations after inflammation with effusion of lymph, particularly pelvic cellulitis, have quickly disappeared under its use. In glandular enlargements, in my hands it has been of more benefit than calcium chloride or the iodine compounds. In stomatitis of pregnant women or from mercury it is equal to the chlorate. In ovarian neuralgia with nervousness and menstrual headache accompanied with wakefulness, this salt has given better results than the bromide or ammonium chloride. When combined with corrosive sublimate it is one of the best preparations for syphilis. I usually give it as follows:

R Potassii chloridi 3 ij.
Hydrargyri chlo. corros. gr. i.
Aquæ ʒ iv.

M. Sig.—Ten to twenty drops every two hours in a wineglass of water.

This preparation I have used almost exclusively in the treatment of syphilis in both its acute and chronic stages, and the result has been most satisfactory. The tincture ferri chloridi is much improved in its therapeutic action when given with potassium chloride.—*Four. Am. Med. Ass'n.*, July 24, 1886.

Luton on the Acetate of Copper in Chronic Phthisis.—The author gives the drug to the extent of gr. $\frac{1}{4}$ a day, and attributes its effect to a specific action. Poirier thinks it acts as a tonic and stimulant. To sustain his theory he cites the improvement noticed in laborers of a lymphatic constitution, when they work in verdigris factories. He often combines the copper with ipecac.—*L'Union Méd.*, July 1, 1886.

Brown-Séquard and Laborde on Narceine.—These authors claim that narceine does not deserve the disuse into which it has fallen. Cl. Bernard demonstrated that it was less toxic than all the alkaloids of opium, and that it possessed all the soporific properties of morphine without any of its disadvantages. Sleep is perfectly tranquil and waking normal.

The authors assert that it has a remarkable action in acute or chronic bronchial affections, in pulmonary tuberculosis, and croup. Cough is quieted; expectoration is lessened and modified; the spasms and vomiting of croup diminish in intensity, and finally cease, and the sleep is calm and refreshing.

Pure narceine is rare, morphine being often substituted. When pure its medium daily dose is gr. x.—*La Presse Méd. Belge*, July 4, 1886.

Duprat on the Physiological Action of Solanum Paniculatum.—This shrub is put to various therapeutic uses in the north of Brazil where it grows. In experimenting with it, a watery-alcoholic extract of the drug was used. Frogs, fifteen minutes after its injection, become completely benumbed. They will lie on the back when placed there. Provoked movements are feeble, reflex movements almost disappear. After a little time the hinder extremities become completely relaxed, and the animal shows no spontaneous movements. The respiratory movements are much slowed, the cardiac movements irregular and rapid. After two hours the frogs recover spontaneous movement, and later still reflex movements. Those which die have been found in the position in which they have been left. Guinea-pigs are affected in the same way.—*Paris Médical*, July 24, 1886.

Bardet (G.) on Piliganine.—Piligan is a Lycopodium, probably *L. Saussurus*, of Brazil, and is employed by Brazilian physicians. M. Bardet found in the plant a resinoid substance and also an alkaloid, which he called *piliganine*. It is soluble in water, alcohol, chloroform, and slightly in ether.

Tried on animals in the laboratory of the Cochin Hospital it acted as a decided emeto-cathartic and violent poison.—*La France Méd.*, June 22, 1886.

Weymann (M. F.) on Liquor Potassii Arsenitis.—If a frog be poisoned with the solution, the symptoms of paraly-

sis soon appear. The paralysis is induced by sensory inability, and cannot be peripheral. During this stage the motor nerves fully respond to electricity, showing the trunks to be in order. This fact makes it very improbable that the sensory fibres of the same nerve should be killed. Excluding those two possible sources of paralysis, only one—*i. e.*, the spinal cord—is left as the sole cause of the mischief. Its sensory cells are killed, and unable to transform perceptions into motor impulses any longer.

Contrary to the statements of Drs. Murrell and Ringer, motor disturbance was not noted in any case. Galvanization of the nerves promptly resulted in movement. That there was no spinal trouble, or, at least, no complete paralysis, was shown by occasional volitional contractions of the muscles. Still, a certain depressing influence on the motor cells cannot be denied. The difficulty and imperfection accompanying, in the later stages, the execution of its functions, clearly point to that effect. Additional corroborative evidence is afforded by the depression after local applications.

An influence not yet thoroughly appreciated refers, I think, to the cranial nervous centres. All higher functions must be profoundly depressed. The batrachian exhibits no fear on being approached, although our inferences from human poisoning would not warrant the conclusion that disordered vision or blindness prevails. That the centre of co-ordination is very severely impressed, is shown by the inco-ordinate movements. Although there is a will and a motor apparatus to execute it, the motormachine lacks that predominating, regulating influence called co-ordination. This is at first only manifested in parts of the system, *viz.*, groups of muscular tissue. Soon, however, the centre even ceases to respond to so profound a stimulation as is afforded by an inverted position, although in the mean time disordered volitional impulses may be observed. If we take into consideration this peculiar influence exerted on the cranial nervous matter, the mysterious action of therapeutic doses of the drug as an alterative would at once be more easily understood, particularly if we are liberal with cranial centres, such as that of nutrition.

Applied to the heart directly, it first increases the pulse-rate and then diminishes systolic force. The main factor seems to be weakness of the heart-muscle. The

whole organ becomes enormously distended, and toward death the contractions resemble a mere shivering. If, however, the ventricular walls be cut, and the cavities so relieved from over-distention, the heart once more becomes regular, only to cease again in a short while. That the resumption of a cardiac action is not merely the consequence of the mechanical stimulation of cutting seems very likely, because the muscle would not previously answer to galvanic stimuli. The force gradually is lost, but if a more than proportionate diminution of labor is connected with it (as cutting of the walls certainly is), a *seeming* restoration of force follows. Another proof for weakness of muscular tissue lies with the fact that the ventricles must often rest. Irregularity is sometimes so pronounced that four auricular contractions are followed by one ventricular systole.

In view of these facts, we would very naturally expect to find a sinking of blood-pressure. Experimenters have proven this to be a fact, some adding vaso-motor paralysis to the *status verum*, which would only so much more condition a fall of pressure. Perhaps this action explains, to a certain extent, its *modus operandi* in intermittent fever. Of course, even then we cannot leave out our favorite appellation "alterative."—*Therap. Gazette*, July 15, 1886.

Monvenoux on Kola.—The author concludes that kola is a cardiac tonic, a regulator of the pulse and a diuretic. It excites cardiac contractions and the contractility of unstriated muscle, but paralyzes striped muscle in large doses. It checks tissue waste, improves digestion, and tends to check diarrhoeal discharges. Its dose is that of caffeine.—*Lyon Méd.*, June 27, 1886.

Hare (H. A.) on the Physiological Action of the Heavy Oil of Wine.—This oil produces on the circulation the following effects :

- 1st. Small doses increase arterial pressure by central action.
- 2d. Large doses decrease arterial pressure by peripheral and central action.
- 3d. Small doses increase rate by direct cardiac stimulation.
- 4th. Very large doses are required to diminish rate.
- 5th. Small doses increase force.
- 6th. Large doses do not decrease force.
- 7th. That it requires very large doses, indeed, materially to decrease force.

Very large doses cause decrease in heart power by a direct action on the heart muscle, and by producing such a general vaso-motor palsy that the heart cannot obtain a sufficient quantity of blood to enable it to drive out through the hungry blood-vessels a fair-sized pulse-wave. The heavy oil of wine in the dose of 45 grains to a very strong and powerful dog weighing 25 pounds, increased the force and rapidity of his respirations very markedly. Violent spasmodic efforts at forcible breathing came on after the administration of a second dose, but as these severe respiratory changes did not occur in other dogs under like circumstances, I believe them to be due to the plugging up of the minute blood-vessels near the respiratory centres by minute oily emboli.

On the nervous system the drug seems to exert but little influence, for even when given in enormous doses to frogs no nervous phenomena were developed, and careful electrical studies on the nerves and muscles when in contact with the oil failed to show any signs of action of the drug.

While the writer was unable to demonstrate any nervous effects produced by the oil of wine, he does not wish it thought that he denies that such influence exists, although he believes it to be very slight indeed. From his experiments it seems probable that

First. The belief in heavy oil of wine being the quieting agent in Hoffman's anodyne, is fallacious.

Second. That the calmative effects of this mixture depend largely on the ether, rather than on the oil.

Third. It would seem probable that in Hoffman's anodyne we possess an agent in which there are linked together three drugs of undoubted power, each one of which successively substitutes the other, stimulating the system in the order here named, viz., ether, alcohol, and the heavy oil of wine.

On animal temperature, as ascertained by the thermometer in the rectum, no effect is produced, even when the arterial pressure is very low. That large doses of the heavy oil of wine are in no way possessed of toxic effects, was proved by the fact that an ounce of the drug given by the mouth to a small dog, weighing 12 pounds, failed to produce any apparent symptoms, except, perhaps, to stimulate him slightly. While the odor of the oil is penetrating, it

is by no means disagreeable, and it possesses but little taste other than that of the presence of an oily substance.—*Med. News*, July 10, 1886.

Williamson (J. M.) on a Case of Idiosyncrasy with Regard to Tannic Acid.—Mrs. B., aged 57, of nervous temperament, but free from all organic visceral disease, was steadily recovering from anæmia of several years' standing. This anæmia had arisen from long-continued hemorrhoidal loss, but the piles which caused it had been successfully removed five and a half months before the time at present under consideration. At the date now referred to the patient was the subject of rather distressing irritability of the bladder. This was an old and frequently recurring trouble of hers, and had always yielded readily to a mixture containing bicarbonate of potassium, tincture of henbane, and infusion of buchu. On the present occasion, however, this medicine altogether failed, and on the 2d of January, 1886, I prescribed the following :

℞ Liq. atropinæ sulphatis . . . ℥v.
 Liq. ammoniæ anisati (*Pruss.*
Pharm.) 3 iiss.
 Infusum uvæ ursi ad ʒ viii.

Misce.

SIG.—An eighth part night and morning.

Now the first dose of this mixture was taken the same evening, and produced slight nausea, which soon passed off. The next day she took the second dose at 11:30 A.M., having up to that hour felt in every respect as well as usual. In half an hour afterward there came symptoms of such urgency that I was hurriedly sent for. I found the patient sitting on a couch, bending slightly forward and laboring for breath. The dyspnœa was precisely that of an asthmatic paroxysm, and was accompanied at intervals by short, violent, suffocative cough. There was no lividity, but the eyes were suffused, and patches of erythema were spread over the face and neck. The pulse was sixty, of average strength, and there was neither vomiting nor nausea. The patient's aspect was half-stupefied, half-anxious.

My first apprehension was that the atropine might in some way be to blame, but this idea was immediately dispelled by observing the undilated pupils, the moist palms, the absence of dryness of tongue and throat. My mind then rapidly recalled a similar attack,

under well-observed conditions, in which I had seen this lady previously. From this I felt sure that the true cause of her present symptoms lay in the tannin, which is so abundantly present in uva ursi, and my diagnosis was given accordingly. Stimulants internally, but especially the inhalation of steam, afforded relief, and the symptoms passed completely and permanently away in between two and three hours.

In July, 1882, the patient being then profoundly anæmic from copious daily losses from the piles, but declining entirely all surgical aid, and several of the ordinary measures having been tried in vain, I prescribed the following :

℞ Acidi tannici gr. xxx.
 Sp. vini rect. ʒ i.
 Aquam ad ʒ ss.

Misce.

SIG.—To be injected into the rectum at bedtime.

After using this application, the patient had barely time to step from the washstand to the bed before alarming symptoms came on. I was myself present during the worst part of the attack, which was of a similar character to that just related, only much more severe. Respiration was exceedingly difficult, the finger-tips were purple, and the erythematous patches were conspicuously present on the face. The mental confusion was so great that her recollection of the details of the attack was afterwards very far from clear. Moreover, the seizure was a long one, lasting at least four hours.

On three occasions only during her whole life had this lady ever undergone an attack of an asthmatic or a bronchitic character. The third is sufficiently remarkable. In time it occurred about midway between the other two. A chip box that had contained powdered tannin was handed to the patient, who was as well in health as usual. The tannin had been emptied out of the box directly before, and the box had been wiped out; but to make sure it was quite clean, she blew forcibly into the box, expiring and inspiring. There followed immediately afterwards an attack precisely similar to those already described, although it was scarcely so severe. It lasted four hours.

Seven or eight years ago Mrs. B. applied gall ointment freely to some external piles, and suffered agonizing pain for fifteen hours afterwards. There were, however,

no other symptoms. Another and very important point is that I administered to her fifteen grains of gallic acid internally three times a day, for eight doses, and promptly checked the profuse hæmorrhoidal loss without any sort of inconvenience resulting; and it should be added that this was a few days after the severe symptoms had followed the injection of tannin into the rectum, as just described. Again, her experience is that strong tea of all kinds produces nausea, and, even for weak infusions, she has had to abandon Indian tea in favor of Chinese for the same reason.—*Practitioner*, July, 1886.

Parrott (M. E.) on Dosage.—Nothing is truer than that there can be no definite and arbitrary rules governing the doses of drugs, physiological effect being our only safe guide. For certain drugs are apt to be sophisticated, while again others are of variable strength, though they may be most conscientiously prepared, it being difficult to obtain the crude materials of proper growth or season.

I recently saw a young man who, by mistake, had taken more than a tablespoonful of tincture nucis vomicæ, without the slightest untoward symptom, and when the mistake was discovered, hours later, and I was hastily summoned, I saw no occasion for interference, there being no symptoms of an overdose, nor did any develop.

On another occasion, recently, I ordered for a child three years of age, ten drops of syrup ferri iodidi tr. d., but the mother, by mistake, gave instead a teaspoonful dose, till my visit the day following, five teaspoonfuls having been taken in eighteen hours, and no appreciable harm resulting. Now, no one will deny these are overdoses, yet, as no harm resulted, it points to one of two things, either the medicines were inert, or the patients particularly hardy and not susceptible to them, for in neither case was the full characteristic physiological effect produced.—*Med. Bull.*, July, 1886.

Rudisch on a New Portable Battery.—The chief point is that the cells containing the fluid can be left at home and the zincs and carbons replaced in the box. A current can be obtained from them after being once charged at the end of four weeks. Between the carbons and the zincs a piece of stout asbestos paper is fastened by means of a few thin rubber bands. The fluid used in the battery is composed as follows: sal ammoniac, one

and a half pounds, add six pints of water. The asbestos paper retains in its pores a large amount of moisture, acting as a large voltaic pile.—*Med. News*, Aug. 7, 1886.

TOXICOLOGY.

Weld (G. W.) on the Destructive Energy of the Tincture of the Chloride of Iron on the Teeth.—Dr. Weld declares that water increases the destructive energy of the tincture of the chloride of iron upon the enamel of the teeth more than any other fluid, and, as an illustration, he states that the effect of adding water to a simple solution of the chloride of iron, *devoid of free acid*, is to give basic salts of iron and the separation of free hydrochloric acid.

He showed conclusively that the tincture of the chloride of iron of official strength had but little, if any, effect upon the enamel structure of a tooth when immersed in the same for a period of twelve hours; but that, when immersed in a solution of the tincture and water, in proportion of one ounce of water to one drachm of the tincture, the enamel was materially injured in five minutes.

The reason is attributed to the fact that alcohol is a dehydrating compound, and the peroxide which is formed in the alcoholic solution is of the anhydrous form, and in character very compact, adhering closely to the surface of the tooth, thereby preventing immediate chemical action; while on the other hand, in the presence of water, the peroxide, which is precipitated in the hydrated form and is flocculent in character, does not so well adhere to the surface of the tooth, leaving the free hydrochloric acid in the solution to unite with the lime and salts with greater facility.

There are three menstrua which may be employed to modify the destructive energy of the tincture of the chloride of iron on the enamel of the human teeth. The first is alcohol in some form. The second is Vichy water, which neutralizes to a slight extent the free acid contained in the iron. And the third is some form of an elixir or simple syrup.—*N. Y. Med. Record*, July 24, 1886.

Banker (A. J.) on Poison by Rat-Bites.—I have collected cases to the number of ten. Out of the number, four have

died—two with dropsy, one with tetanus, and one with extensive sloughing and so-called pyæmia. The history of the cases is, in the main, the same, the stage of incubation varying but a few days. In most of the cases the wound healed kindly without general disturbance, and the general disturbance which came on subsequently seemed to be in the nerve centres.

In each of these cases a particular train of symptoms was developed, bearing a relation in a collection of cases which suggests the idea of a specific poison. The question now arises, is this form of poison specific in its character, or does it belong to that general class of blood-poisoning denominated pyæmia and septicæmia? As to the treatment which seems best adapted to the poison, I have been unable to arrive at any definite course. The only fact which impressed itself forcibly upon my mind was the intolerance of the patient to any medicine containing acid. The muriated tincture of iron acted as an excitant and aggravated the nervous symptoms; besides, it had a deleterious effect on the secretions. Alkalies are well borne in the acute stages, and alleviate the sufferings, and favor elimination. Salicylate of soda with acetate of potassium, or large doses of bicarbonate of soda, act favorably. A thorough saturation of the blood with alkalies seems to counteract the poison.—*Am. Pract. and News*, July 24, 1886.

Mutch on Poisoning by Syrup of Squills.—After a brief review of the chemical properties of squills, he proceeded to relate the symptoms produced in the four cases which had come under his observation:—Isaac B—, aged three and a half, suffered from pains in the legs, difficulty in breathing, and prostration. His face was pinched and pale, eyes sunken, lips, fingers, and nails livid, respiration quick, and pulse irregular. He died on the same day as first visited by Dr. Mutch—*i. e.*, Feb. 18, 1886. The boy had suffered from whooping-cough, and had been taking a mixture composed of syrup of squills, syrup of violets, ipecacuanha wine, and oil of almonds, for about ten weeks. Ethel B—, aged five, had taken the same mixture for the same period as the foregoing, and some days subsequent to the death above-mentioned, complained of her legs giving way, of falling several times, and of vomiting. Her eyes were sunken, respiration and temperature normal, face pale and livid; her

pulse was irregular and intermittent (one in every four beats); pupils normal. She died suddenly five days after the onset of these symptoms, on Feb. 26th. A post-mortem examination was made forty-eight hours after death, when the chief signs were found to be fluidity of the blood, arrest of the heart's action in systole, and lividity. The two remaining cases recovered. The mixture had been analyzed by Dr. Trueman, who attributed the symptoms to an especially strong preparation of squills in the mixture which had been administered.—*Lancet*, July 3, 1886.

Death in a Bath.—The dangers connected with the use of hot baths in private houses are not always thoroughly appreciated by those who indulge in them, but that such dangers do exist has been again and again demonstrated by the occurrence of fatal accidents. The deceased, a young lady twenty-two years old, had, on the preceding Saturday, left her bedroom to take a bath, and being a longer time than usual, her sister sought to obtain access to the room, but failed to get any response to her summons. Being alarmed, a brother of the deceased, proceeded to examine into the room through a window, when he saw his sister lying motionless in the bath, with her head submerged. On forcing the door, it was found that the unfortunate woman was quite unconscious, and though she was at once removed to a bed, all attempts at resuscitation proved vain. The bath-room itself was described as being extremely hot, and there can be little question that the deceased, being overcome in consequence, had fainted in the water, and thus been suffocated. The possibility of such a catastrophe ought never to be forgotten, and especially in the case of young, delicate, and sensitive females, who are usually the ones to suffer in such manner. Bath-rooms as ordinarily constructed are peculiarly favorable to the development of unusually high temperatures in them as the hot water is admitted to the bath; and under such circumstances, the increase of heat being gradual, the senses of the bather are slowly but progressively overcome. The best remedy against such untoward occurrences would be found in the provision of a suitable means of ventilation, whereby the temperature of the room might be readily prevented from rising to excessive figures.—*Med. Press and Circular*, June 30, 1886.

Foreman (Wm.) on a fatal Case of Poisoning by Bisulphide of Carbon.

—The patient aged sixty-three, was a shoemaker. He had been drinking for the previous ten days, and had come in from the public house at 4.30 P.M., and asked that some gin should be sent for ; this was done, and almost immediately afterwards he was noticed to be strange, and said, "I have done it." It was then perceived by a bottle close to him and by the smell that he had swallowed a preparation used by him in his trade, and which turned out to be bisulphide of carbon. I was at once summoned, and probably a quarter of an hour elapsed between his taking the poison and my seeing him. When I saw him he was sensible, and wanting to go into the back yard to defecate. I was not able to get any information from him. There was a very strong smell of bisulphide of carbon in the room. I at once administered a tablespoonful of mustard with six ounces of warm water. He drank about four ounces. I then left him, and prescribed forty grains of sulphide of zinc, to be taken at once in warm water if the mustard had not acted ; afterwards to take fifteen grains of bicarbonate of soda, and carbonate of magnesia every ten minutes. At 6:15 P.M. I saw him again, at which time he was completely unconscious, and could not be roused. As he had not vomited, I introduced the stomach-pump, but only obtained a small quantity of brown-colored fluid, with a white, frothy substance floating on the top, due probably to the mixture of soda and magnesia which had been given. I washed out the stomach with warm water. The pupils were normal, but reacted to light ; conjunctivæ suffused and insensible to the touch. Respiration slow, long, and stertorous ; pulse small, rapid, and compressible, varying from 150 to 160 a minute. Surface of the body cold and clammy ; tongue thick and furred. After washing out the stomach, I gave him two tablespoonfuls of brandy in half a glass of water through the stomach-pump. He never rallied, but died about two hours and a quarter after taking the poison.

The following appearances were noted : Rigor mortis complete ; pupils normal ; hypostatic congestion of dorsum ; body well nourished. On opening the head, the dura mater was adherent to the calvaria ; surface of the brain much congested ; veins gorged with black blood. Brain substance

healthy. Thorax : The left lung was slightly adherent at the apex ; no effusion in the pleural cavities ; lungs healthy. Heart : The right ventricle contained about an ounce of dark fluid blood ; walls covered externally with a layer of fat ; left ventricle firmly contracted and empty. Abdomen : The stomach contained about a quarter of a pint of fluid, with flakes of lymph in it, slightly ropy, and appeared to be water and mucus. A faint smell of bisulphide of carbon was perceptible. The submucous tissue was injected, and there was a number of minute hemorrhages. The posterior wall of the stomach was much more congested (to the size of a crown-piece) than the anterior surface. There was no perforation or abrasion of the mucous membrane. The spleen was small, but healthy. The liver was normal in size, and healthy. The kidneys were surrounded with a large quantity of fat ; they were slightly congested, but healthy. The bladder contained about two ounces of urine, having a slight smell of bisulphide of carbon. There was less of the cadaveric smell than is usual in post-mortem cases.—*Lancet*, July, 17, 1886.

Ross (H.) on Recovery after Swallowing a Fluid Ounce and a Half of Commercial Hydrochloric Acid.

—George B—, a man, aged thirty-nine, was brought to the hospital reported to have swallowed a dose of hydrochloric acid. It appeared that he had lately become melancholic, and had attempted suicide by laudanum four days previously, but was fortunately discovered, and the poison taken from him. On the day of admission, he purchased an ounce and a half of "spirits of salt," which he sent for in a small gallipot ; he then filled an ounce and-a-half bottle with the acid and drank the whole of it. He was seen about ten minutes afterward by Dr. Ross, who at once administered some calcined magnesia, and recommended his removal to the hospital.

On admission, he was very pale and much collapsed. There was much retching, and he vomited a quantity of dark, blood-stained fluid, with a peculiar, almost aromatic smell. There a well-marked red line at the back of the hard palate, where the acid had first come in contact with it. He complained of no pain, and no tenderness at the epigastrium. He was ordered some carbonate of potash and borax, with

Battley's solution of opium, but continued to vomit dark, blood-stained fluid, with small shreds of membrane.

May 4th.—The man has been quite free from pain, and can swallow well, but is still sick from time to time. The bowels have acted without aperient, and the motions contain a little blood. A white membrane has formed on the dorsum of the tongue, and is slowly peeling off. He has now a good healthy color in his cheeks, and presents a tranquil, comfortable appearance, and sleeps well all night. The temperature has been 99.5° until today, and is now normal.

10th.—The patient has been up for two days, and appears perfectly well. There is no pain, no difficulty in deglutition, and the evacuations contain no blood. There has never been any marked constipation.

On the 12th he left the hospital quite well. Dr. Ross ascertained from the chemist that the acid supplied was of the ordinary strength of the commercial crude hydrochloric acid, and it was conclusively proved that the full amount above mentioned was taken.—*Lancet*, July 3, 1886.

MEDICINE.

Herrick (H. J.) on Diatetics in Idiopathic Fevers.—Let the suffering organs rest, but give to the fullest desire fresh, pure, soft water. It insinuates itself among the tissues, favors in them those metabolic changes which constitute the phenomena of life.

But you say, would you give no food? Not during the active febrile stage. Mild acidulated drinks, cooked fruits, or mucilaginous drinks, are all I would allow.

Whenever the fever abates, or when the powers of the patient are flagging from the exhaustion of the reserve, I would give the meat juices or broths, such as may be absorbed without digestion, leaving little or no residuum to clog or irritate the diseased bowels.

It is my custom to prescribe definitely the food and drink my patient is to have, as well as the medicines administered.

If food is given, it should be in that form which is the nearest approach to the tissues of the body, in which the least digestive power is required. The clear meat broths, or the expressed meat juices,

meet the indications most perfectly of all substances.

When we consider the appropriate forms of food and support in bilious or remittent fever, certain modification of our conclusion is necessary, and this is from the location of the lesion causing the fever.

The liver being the suffering organ, under the guidance of that principle which requires to rest the organ suffering inflammation, we must keep in mind the functions of that organ, both as a gland secreting bile, and as an organ with a glycogenic function for the transformation of sugar and starch into glucose, and a further elaboration of fat.

A failure to heed these functions, and their impairment in diseases of the liver, is liable to result in allowing the patient to take those articles of food that shall aggravate the diseased process.

It is not difficult to perceive that a rigid care in the dietetics alone of bilious fever may be sufficient to effect the cure.

In diseases of the liver, especially the inflammatory with fever, I am in the habit of withholding carbohydrates scrupulously, but prescribing water freely, and that hot, or as warm as the patient can bear it. Should there be nausea, I combine Bicarb. of soda in small quantities, often repeated, until thirst is satisfied and fever abates. I am quite certain that many of the serious complications which arise in the treatment of those forms of disease are due to errors in feeding.—*Colum. Med. Jour.*, July, 1886.

Braithwaite (J.) on the Treatment of a Form of Diarrhœa in Children.—

There is a form of diarrhœa in children, usually occurring after weaning, and from that period to four or five years of age, which is characterized by the most horrible offensiveness of the motions. This is so marked, that it is generally at once mentioned by the parents. It is commonly met with in summer, but is not strictly what is known as infantile diarrhœa, in which disease the stools are sour, but not necessarily fetid. Probably this form of diarrhœa differs from the diarrhœa of younger infants, in being caused by the growth of the ordinary bacteria of putrefaction. It is not amenable to treatment by any astringent, nor has any alteration of diet much effect upon it.

It may, however, be successfully treated by disinfecting the bowel-contents by means of salicylate of iron, as in the fol-

lowing prescription, which is suitable for a child two years of age. Sulphate of iron $\mathfrak{D}\text{i}$; salicylate of soda $\mathfrak{D}\text{i}$; glycerine 3 iij ; water to three ounces. The iron and the salicylate should be dissolved separately, and the solutions mixed. The color is darker than port wine, and the taste not unpleasant. One teaspoonful must be given every hour, until the stools become well blackened, which happens in about twenty-four hours; or a larger dose may be administered at longer intervals. The medicine should then be given every three or four hours, and occasionally a small dose of castor-oil, to clear the bowels well out, and to get the secondary constipating effect of the oil.—*Br. Med. Four.*, July 17, 1886.

Straus on Miliary Renal Abscesses in Typhoid Fever as a Sign of Purulent Infection.—The author concludes that miliary abscesses in the kidney are not special lesions of typhoid fever, but really a form of secondary pyæmia of internal origin. The renal lesion is characterized by suppurative periglomerulitis. It is produced by a diapedesis of micro-organisms through the vessel-walls and capsule of Bowman into the neighboring connective tissue. This secondary pyæmia cannot be diagnosed, and its treatment must be prophylactic by intestinal antiseptics.—*Paris Méd.*, July 10, 1886.

Goldschmidt (D.) on Perityphlitis Treated with Ice—Recovery—Expulsion from the Rectum of a Fecal Calculus of the Vermiform Appendix.—The patient, a student of twenty, had a slight typhlitis in 1880. A year later he had a similar attack. In November, 1885, he had vague pains in the right iliac region, with alternate constipation and diarrhœa, which lasted some days. In December the symptoms reappeared and lasted fifteen days. February 19, 1886 the symptoms returned and persisted. On examination March 1, 1886, there were pain and gurgling on pressure in the right iliac fossa. Certain movements, as flexing the right thigh, increased the pain. There was persistent constipation.

Emollient applications were first tried, and, later, ice. On March 18th it was thought safe to give a purge, and castor-oil was administered. The next day in a large stool was found a fecal calculus an inch long, a quarter of an inch thick. It was laminated, and undoubtedly originated in

the vermiform appendix.—*Gaz. Méd. de Strasbourg*, Aug. 1, 1886.

Paton (D. N.) on the Nature of the Relationship of Urea Formation to Bile Secretion.—The destruction of blood-corpuscles must be considered as a powerful stimulant to the secretion of bile, the liver having as one of its functions the elimination from the system of effete hæmoglobin.

Urea-production, also, is increased by the destruction of blood-corpuscles.

Bile-secretion and urea-formation bear a direct relationship to one another, and this relationship is due to the dependence of both upon destruction of hæmocytes.

The cholagogue action of salicylate of soda, of benzoate of soda, of cholchicine, of perchloride of mercury, of pyrogallie acid, and of toluylendiamin, as well as their influence in increasing the production of urea, is due, in great measure at least to their direct hæmolytic action.—*Br. Med. Four.*, July 31, 1886.

Duckworth (D.) on Cases of Valvular Disease Long Free from Serious Symptoms.—A diligent search amongst cases of cardiac valvulitis appears to bring out the fact that a favorable prognosis, for many of them, may be given. Certain valvular lesions have their special perils, and these pertain to certain individuals more than to others. At some epochs of life, too, the prognosis is graver than at others. In each case, however, the great point is to determine factors which promise longevity, or immunity from cardiac failure. So long as nutrition is well maintained, and a regular, prudent, and equable life is lived, so long will cardiac valvular lesions fail to give rise to serious symptoms. Dr. Simple has the credit of having called attention, thirty-six years ago, to the fact that many persons reached advanced age, although suffering from heart-disease, many of them being quite unconscious that they were the subjects of it. What we have to try to discover, are the conditions which render tolerable the lives of persons so suffering. The lesions of each valve affected require a special study. The question how far compensating changes behind the valves can be met, must be answered in the case of each valve, and in respect of the textural habit of each patient. Discrepancies occur in the opinions given as to the relative gravity of the different forms of valvular disease.

These are to be explained by the fact that certain cases, presenting the worst of these lesions, or combinations of them, are fortified against the evil issues of them by favorable personal factors. The prognosis of each case has to be made after careful consideration of the peculiarities and tendencies of the particular individual. The tendency to embolism in proliferative valvulitis must not be lost sight of in some cases, and the frequent association of anginal symptoms with aortic mischief must be duly considered. Difficulty in prognosis, in any case of reflux, arises from the frequent inability to estimate its extent. Audibility in the second sound in the carotids is believed, I think with justice, to indicate that aortic regurgitation is not great. A well marked "aortic" pulse, with visible pulsations in the arteries, may be taken as indicative of serious reflux. Bramwell thinks the average prospect of life better in aortic reflux than in mitral lesions, and the risks of complications less. With most modern writers, he agrees in thinking the prospects better in cases of endocarditis, and in youth, than in those due to degenerative changes in more advanced life.

In aortic stenosis, we have seen that the prospects are not unfavorable in many instances. In mitral disease, evidence is forthcoming to show that, with good compensation, cases may go on favorably for many years. The worst combination is that of obstructive and regurgitant disease. This commonly indicates that the lesion is not stationary; and failure of power, in the cardiac walls, too often rapidly supervenes. These cases are never free from serious symptoms. A better prognosis attaches, therefore, to instances of valvular disease in which we meet with single murmurs, and, commonly, *quâ* murmur, the louder this is, the better the prognosis. As has been long taught, the elements of prognosis in all cases are to be found in the nutritive conditions of the cardiac walls rather than in those of the valves themselves; and as these are naturally better in youth than in advanced life, the prospects are, on the whole, better for the former than for the latter. We must not look beyond our clinical studies, in their widest sense, to find the elements of our prognosis. Large and varied experience in all ranks of life will alone enable the observer to form trustworthy opinions. Careful study of family histories, of the points respecting

heredity in each case, and of the quality and resisting powers of the tissues of the individual, will furnish, not only the safest, but the sole means of prognostication. Nor may we ignore the place which rational therapeutics occupies in aiding our anticipations in any given case. This, for me, means more than mere drug-giving, though this is of high importance, and includes the aversion from the patient of all the malign influences that may beset him.—*Brit. Med. Jour.*, July 10, 1886.

Ewart (W.) on the Treatment of Empyema by Perflation.—Perflation ("through blast"), as applied in empyema, has the following objects: (1) the avoidance of all fluid injections, and of the irritation which, as foreign substances, they cannot fail to excite; (2) the evacuation (in the absolute sense) of the pleura, a cavity seldom emptied by fluid injections. Strict antiseptic precautions and dressings, and the employment of an efficient disinfecting spray, are essential parts of the treatment.

The apparatus consists of (1) Richardson's bellows; (2) india-rubber tubing; (3) a bottle about eight inches high, to contain to the depth of one and a half inches (4) a solution of carbolic acid 1 in 10, (5) a good cork perforated by two tubes—the one barely projecting within the bottle, to be connected with the chest, the other of sufficient length to dip not more than a half inch below the surface of the solution, for connection with the bellows.

The treatment is applicable at any stage of a suppurating empyema. Where two openings have been made, one is utilized for the entrance of air; the other (lower) opening serves as exit. In such a case reflux of air by the side of the tube inserted into the upper opening must be prevented by a broad flange attached to the tube, or by the firm application around the latter of a moistened pad. It is, however, an advantage of my method that in any ordinary case a second opening is unnecessary. A single good-sized opening will allow sufficient room for the air-supplying tube and also for the escape of the contents of the cavity. Once having grasped the principle of the procedure, each operator will be the best judge of the exact size of the incision required. The tube may be inserted to a depth of several inches, and perflation begun as soon as the spontaneous flow of pus has ceased, and the same process is to be repeated at each dressing.

The principles underlying the method are the following : 1. Whereas fluids obey gravitation, air will diffuse into every nook and cranny. 2. Whilst an injected fluid stream strikes few spots only, leaving other parts uninfluenced, the current of air will transmit in every direction even fractions of its own pressure. 3. Whilst water merely dilutes fluids and suspends light solids, any fluid or detached solid will sink in air. It follows that if the patient be so placed that the wound strictly coincides with the most dependent spot of the cavity to be drained, any fluid or solid will either escape at the opening or plug it. If a plug be thus formed whilst the bellows are worked continuously, pressure will rise behind the plug and probably expel it. Plugs of this kind are habitually furnished by fragments of necrosed lung, by blood-clots, and by purulent false membranes. I possess evidence of the efficacy of the air-blast in detaching false membranes which had resisted a long course of irrigation ; to their presence is probably due the protracted suppuration of many empyemas.

The average duration of each perflation has been ten minutes ; on one occasion it exceeded three quarters of an hour. I have not hitherto observed any carboloria, neither has there been the slightest complaint of pain, discomfort, or internal draught. In the intervals between the dressings a stout drainage-tube should provide for the continued patency of the wound, and the opening should be sealed by an air-tight dressing of medicated wool, which will for the time convert the chest into a closed cavity, and afford an opportunity for the expansion of the lung.—*Lancet*, July 31, 1886.

Arnold (A. B.) on Myalgia.—The term myalgia is undoubtedly preferable to denote this peculiar muscular pain, as it does not imply a theory ; but if the word rheumatic is merely understood to signify the effect of atmospheric influences, which by common consent favors the development of the affection under consideration, there can be little objection to speak of muscular rheumatism.

The essential symptom of myalgia, as already intimated, is the sudden accession of a diffused pain, chiefly referred to some muscle or a group of muscles. When the pain or tenderness is limited in extent and of a more acute character, it is probable that the aponeuro-

sis or tendon of the muscle is mainly affected. Occasionally the pain is of a dull, aching kind ; more frequently it is of a tearing, dragging nature. It is started and aggrieved on movement ; but even during perfect rest there remains a feeling of soreness and tiredness resembling the peculiar sensation of an over-fatigued limb. Deep pressure also causes pain. The patient seeks to assume a certain position of the body which he finds to give him some relief. No outward change of the painful muscle is visible, fever is rarely present, and no sequelæ occur.

In reference to the etiology of muscular rheumatism, it must be admitted that an attack can be frequently traced to the immediate effect of exposure, or what is commonly understood by the expression of "catching cold." I am inclined to believe that patients give a true explanation of the causation of the muscular pain when they attribute it to the direct influence of a draught of cold and moist air during the overheated state of the body resulting from muscular exertion. A traumatic cause, as a strain, in stooping or lifting a heavy substance, rather than exposure, is the etiological factor in some cases, and even the rupture of muscular fibres may sometimes be suspected.

Among the varieties of myalgia none is more painful and distressing than the implication of the occipito-frontalis muscle. The whole scalp may be so exceedingly tender that the patient dreads the use of the comb or brush. The peculiarity of this form of headache consists of a steady, intolerable pain, which is not confined to a particular region of the head. Frequently the pain extends to the temporal muscles or radiates to the nape of the neck and the shoulders. Patients often complain that they do not know where to lay the head when trying to go to sleep. It is well to remember that a similar pain of the head, attended by insomnia, occurs in syphilitic periostitis of the cranium. The violent pain of the head dependent on cerebral tumor or abscess will not be easily mistaken for rheumatic headache, in view of the fact that the pain resulting from intracranial disease is far more intense and persistent, and is generally limited to a particular spot.

Much relief will be obtained in the mild form of rheumatic headache from rest and covering the head and neck with a thick

woollen shawl. A full dose of Dover's powder, taken in the evening with hot lemonade, usually secures a quiet night. Great violence of the pain may require the prompt action of a hypodermic of morphia. When the headache does not yield to these measures or has a tendency to become chronic, good results may be expected from blistering the nape of the neck or the parts behind each ear.

The large majority of cases of rheumatic torticollis readily yield to stimulant liniments. In long-standing cases the deformity is kept up by the persistent spasmodic condition of the muscle. Blistering is occasionally of service, but the application of the galvanic current is more frequently successful.

The term pleurodynia is commonly applied to the rheumatic myalgia affecting the pectoralis major and intercostal muscles from the fifth to the eighth ribs. Much pain and embarrassment in breathing is experienced during forced inspiration. The pain resembles the pleuritic stitch, and for this reason patients allege that they cannot take a full breath.

Pleurodynia is, however, more apt to be mistaken for intercostal neuralgia. The distinction rests upon the circumstance that in the latter affection the pain is limited to the course of the nerve; it is of a paroxysmal and lancinating character, and marked by the existence of punctæ dolorosæ. Sometimes the scapular muscles and those of the back are implicated at the same time.

The pain of pleurodynia is frequently relieved by a large mustard-poultice. I have seen benefit from a liniment composed of the camphorated tincture of soap and veratria, in the proportion of eight grains of the latter to the ounce of the tincture. A hypodermic of morphia can hardly be dispensed with when the pain is severe and greatly interferes with the breathing. The application of wet cups often answers the same purpose.

It is in lumbago that a traumatism rather than the rheumatic element most frequently gives rise to the backache which induces the patient to keep his body in a bent position. The lumbar pain commonly comes on during active exertion involving a strain or stretching of the muscles. Either one side or both sides may be affected. The character of the pain bears a close resemblance to the sacral pain of

small-pox. The pain is far less intense in the backache from renal and uterine affections and hemorrhoids. In many cases of lumbago of a recent and mild nature I have observed prompt relief from the popular remedy of passing a hot flat-iron over the protected part. In fact, the application of dry heat is always grateful. A more elegant way of relieving the pain is the stimulation of the electric brush. It frequently acts like a charm. Chronic cases yield sometimes to the persistent use of the galvanic current, which I learned from actual observation. For the purpose of subduing the pain in lumbago at once, nothing can take the place of an injection of morphine.

It is difficult to determine to which category of painful sensations the so-called "growing pains" of children and the "schoolmate's pain" should be referred. Suppose it be admitted that these vague morbid feelings in the majority of instances depend on some recognizable cause, there are, nevertheless, cases met with in which the subjective symptom of muscular pain appears to constitute the sole ailment. I have observed in children such actual suffering from pains in the back, chest, and the abdominal walls that I was unwilling to believe them to be a sham. A release for a reasonable time from school should certainly be advised. I have seen much benefit in these cases from general faradization.

I am not sure whether the general pain, or, more properly, the sensation of uneasiness felt in the limbs and back, which often succeeds a chill, but does not develop any serious symptoms, should be classed with muscular rheumatism. It is now the fashion to refer this condition to a malarial influence. I have never failed to overcome this ephemeral disorder by diaphoretics assisted by a dose of Dover's powder.

Among the morbid changes that may possibly underlie myalgia, the existence of muscular inflammation suggests itself. But, with the exception of the pain and tenderness, there are no symptoms which would indicate the occurrence of myositis. As the pain can only be due to the implication of sensitive nerves, an irritative condition of nerve-fibres distributed to the muscular structure may be supposed to exist.—*Phila. Med. Times*, July 24, 1886.

Sinkler (W.) on the Treatment of Facial Spasm.—The author entered at

length into the results which had been secured by others in these cases, quoting an interesting case that had come under his observation, in which the biceps of the right arm was affected. All the teeth upon right side of the mouth were removed, but no relief resulted. Gelsemium, cannabis indica, quinine, eserine, nitro-glycerine, and electricity were used, but without any marked result; in fact, the pain now extended to the right thigh and leg. The operation of stretching the facial nerve was decided upon after consultation. From the date of the operation up to the present time, there had been no spasm. The force used in the stretching of the nerve was estimated to be about twenty-five pounds. He had seen the patient some four weeks after the operation; the right side of the face was palsied; she could not shut the right eye, and the corner of the mouth hung down; but the patient assured him she was willing to remain that way rather than return to the former terrible twitching. He thought in this case the disease was of peripheral origin, and that in these cases, after therapeutic measures have failed to relieve, the operation of stretching should be performed without any unnecessary delay.—*Med. News*, Aug. 7, 1886.

Zenner (P.) on Auctioneer's Cramp.—Patient, a male, forty-five years of age, of good family history, had always enjoyed excellent health, following the occupation of an auctioneer. In March, 1885, was confined to his house for a month with an ulcer on one of his legs. During that time he enjoyed good health, with that exception. He had been an exceptionally busy man, calling sales from morning until night, often refusing to leave the sale to obtain his lunch. After recovering from the ulcer and resuming his calling, he noticed, at the first sale which he oried, that he had some difficulty in his articulation, but it was not such as to cause him to desist from speaking. After three or four successive sales, during which time the difficulty kept increasing, he was compelled to abandon his business entirely. He now began to notice occasional slight difficulty of articulation in ordinary conversation, and also some subjective symptoms, consisting of a sense of fatigue of the muscles upon the left side of the mouth after talking, a sense of throbbing, and a dragging sensation at the left corner of the mouth. Dr. Zenner saw him about a month after

these symptoms were first felt. At that time there was considerable general nervousness shown; further than this there has been no symptoms of disease, his general health being excellent. His weight is about the same, appetite fair, and sleeps well; general motility, on application of electricity, normal, as are also the tendoreflexes.

When the face is in a state of rest there is a certain increase of depth of the nasal fold, and a drawing-in of the left corner of the mouth, which is due to tonic spasm; the patient also feels a certain sense of pressure there, as though the cheek were pressed against the teeth. In ordinary conversation the contractions of the muscles are scarcely visible—in fact, some of his acquaintances have not noticed any thing abnormal. On the rapid repetition of words the contraction of the muscles upon the left side of the face is very marked, these being tense like a rigid band, while the right corner of the mouth is drawn upward, making it almost appear as though the contraction of the muscles was upon the right side of the face, while the left, to an ordinary observer, would appear almost normal; the patient also complains of a sense of very painful fatigue on left side of face. The orbicularis oris in this case seemed to be the muscle principally involved, but other muscles are somewhat affected. The patient himself discovered that by putting the end of a pencil under the lip and pushing it upward to relieve the tension, he could articulate much better. In this case he applied electricity, massage, and manipulation, the muscles responding to the current as promptly upon one side as the other. But this treatment had effected no very satisfactory results as yet.—*Med. News*, Aug. 7, 1886.

Weber (L.) on the Psycho-Neurotic Affections which Accompany and Often Mask Phthisical Disease.—The peculiar mental conditions referred to were: first, the cheerful, hopeful condition frequently seen in the acute form of phthisis; and, second, the condition of mental depression and distrustfulness met with in chronic phthisis, more especially in that form called latent. The mental symptoms, in this form, preceded, in some cases, the physical depression, and consisted of languor and depression, mingled with weariness, rather characteristic of the initial stage, and usually accompanied by gen-

eral functional debility. Occasionally, periods of considerable excitability might occur. There was a general disinclination to enter into any kind of amusement or continuous work, and even if it was overcome, there was no interest manifested in the employment. If there was any single tendency that characterized the mental state in these cases, it was to be *suspicious*.—*N. Y. Med. Jour.*, July 31, 1886.

Money (A.) on Capillary Embolism of Brain and Spinal Cord Experimentally Studied; its Relations to the Various Forms of Chorea.—The author expresses his present attitude with regard to the subject by the following propositions:

1. Human chorea is generally and mainly of cerebral origin, though a few cases may be of purely spinal source.

2. The commonest lesion causing chorea is a "rheumatic" affection of the circumsular connective tissues of the motor apparatus of the brain and cord.

3. Embolism may be a cause of chorea in rare instances.

4. Chorea may be set up by "fright," when the lesion is probably a molecular disturbance of the cerebro-spinal motor apparatus.—*Brit. Med. Jour.*, July 17, 1886.

Franceschi on Syphilitic Chorea.—A young man in Buenos Ayres, by his strange contortions, had excited the curiosity of the passers-by. The movements were of a choreic nature, the most characteristic being a contortion of the thoracic, abdominal, and pelvic muscles. The patient's condition became so grave that he could not move out of his room. For a month, various methods of treatment were unsuccessfully employed—electricity, sulphur baths, strychnine, hyoscyamine. Dr. Valdes remembered having treated the patient six months previously for a chancre, which, at the time, was not thought to be syphilitic, and had not been treated by mercurials. There were no enlarged inguinal glands, or other marks of syphilis; however, it was decided that the chorea might be of syphilitic origin, and therefore he was treated accordingly: pills (green iodide of mercury) inunction over the spine of a mercurial and croton ointment, together with Van Swieten's solution (perchloride of mercury) and vinum ferri. In three days salivation occurred, and simultaneously with it the choreic convulsions disappeared. The mercurial treatment

was then discontinued, but it was found necessary to resume it, for the convulsions soon began to recur. The salivation subsequently became so distressing that the mercury was again stopped, and the convulsions returned, though not so severely as before. Mercurial and iodide treatment was continued for six months, at the end of which time the patient was completely cured.—*Lancet*, July 31, 1886.

Mills (C. K.) on Unilateral Sweating.—The patient was an unmarried woman, thirty-four years old. Eighteen or nineteen years ago she began to have spasmodic attacks, which seemed, from description, to be epileptic. About fourteen years ago she had a stroke of left-sided paresis. About the same time she began to perspire excessively on the side of the paresis. This unilateral sweating has continued up to the present time, and is more marked than before. The secretion on the right side is normal. There is also increased lachrymation on the left side. The saliva seems to be about in equal amount on both sides. Before the occurrence of the spasms she complained of a peculiar taste, probably metallic. She occasionally has slight attacks of dizziness, is somewhat absent-minded, and at one time had severe pain in the head. Four years ago the spasms ceased. The left side of the mouth is visibly drawn a little upward. There is slight paresis of the muscles supplied by the facial nerve. She cannot draw up the left side of the mouth volitionally as well as the right. The slight loss of power in the limbs of the left side is more particularly in the arm.

She has had no trouble with the bladder or bowels. At times the left side of the face reddens very much, and remains so for some time. She has some pain on the left side. She has been chiefly treated for uterine trouble. She does not present any signs of the hysterical temperament. Against hysteria are the facts that, in the first place, she has paralysis of the muscles supplied by the facial nerve; second, she has contracture on the left side, which is sometimes present in old cases of facial paralysis; and, third, the persistence of the condition for fourteen years.—*Jour. Nerv. and Men. Dis.*, July, 1886.

Foster (J. M.) on the Treatment of Insanity.—The first, or predisposing, cause we are, in most cases, unable to remove; nothing is left, then, for us to do

but to improve the general health, so that the patient may, if possible, resist the disease. We must treat the case as we find it, adapting proper remedies to the symptoms. The second, or exciting, cause we can often remove. If intemperance, prevent it; if lactation, stop it; if some bodily complaint, cure it.

Not all cases of the disease are dependent upon physical ailment. On making uterine examinations of about one hundred and fifty patients, I found only two with a displacement of the uterus, and only three or four with congestion and ulceration. The general health of the patients seemed to be almost up to the average. In one hundred *post-mortem* examinations we found few markedly diseased conditions of any of the internal organs.

The indications for treatment of melancholia seem to be the following: Improve the physical condition by proper hygienic surroundings, systematic exercise, and tonics; and there is no tonic which meets the indications more thoroughly than iron, the least disappointing of all its preparations being the old-fashioned muriated tincture, either alone or combined with quinine.

The cold hands and feet call for stimulation, which we can get from the use of alcohol.

The depression of spirits and sleeplessness can best be overcome by the use of some opiate, and the best preparation is the bimeconate of morphia.

This excitation of the nervous system is followed by a delightful calmness, which is desirable. This calmness is followed by sleep lasting several hours.

With regard to dosage, we must not measure this drug, as well as others that will be mentioned, by grains, but by the physiological effects and reactions. If the tension of the arterial system is low, small doses answer best; but with a quick pulse and high arterial tension, large doses are indicated to obviate a protracted stage of excitation.

If there are periods of excitement and sleeplessness which opium does not relieve, the chloral will meet the indication.

We must not forget the moral treatment, which plays a conspicuous part, and which consists in the arrangement of the surrounding circumstances to the best advantage, such as judicious control, engaging the patient's attention, forming new impres-

sions, and, if needed, a change of place and scene.

The primary indication in acute mania is to secure rest for both body and mind, and it may become necessary to resort to forcible restraint.

The remedy for sleeplessness and the excited condition of the nervous system, above all others, is chloral hydrate; it meets the indication more promptly and effectually than any other drug. With regard to the dose we must be governed by the effect, nor can we afford to be timid in its use, giving as much as forty grains if required to promote sleep. But, fortunately, from twenty to twenty-five grains will generally be sufficient to quiet the patient for several hours.

Nothing will be of benefit in this form of insanity unless it gives rest to the brain, for it is as important to give sleep to the diseased brain as it is to give rest and support to a fractured arm.

Chloral causes a slowing and weakening of the pulse, and upon the cerebrum it acts as a most powerful and certain hypnotic. The sleep produced by chloral is natural and refreshing without unpleasant after-effects. The prescription which has given the most satisfaction is a combination of equal parts chloral and bromide of potash with about one eighth of a grain of morphine to the dose. The addition of cannabis indica and hyoscyamus is advantageous.

With regard to accessory measures, such as the cold douche, the wet pack, shower baths, the mustard bath, and many other agents too numerous to mention, I would say that they may be resorted to when adapted to the case, but should only be looked upon as secondary to the outlined treatment.

In conclusion, I wish to emphasize the importance of prompt and, if necessary, heroic treatment in acute insanity, for my experience leads me to believe that the average general practitioner will be able to decrease the insane census by devoting more study to the subject, and maturing in his mind the prompt and efficient treatment.—*Am. Pract. and News*, July 24, 1886.

MacDonald (K. N.) on Strange Effect of Lightning, Lasting for Forty-two Years.—On the 14th of August, 1844, Mrs. D—, a remarkably intelligent woman aged seventy-eight, and in full pos-

session of all her faculties, states that about four in the afternoon of that date she stood at a table near her window ironing a bordered cap with an Italian iron, during a thunder-storm. A neighbor having entered her room at the time, and remarking how very vivid the flashes of lightning were, she drew the table away some distance from the window, and entered into conversation with her friend. While doing so, an extremely vivid flash occurred, which stunned her, and she fell back unconscious into a chair for a short time. On regaining consciousness, she found that the cap she had left on the table, but not in contact with the iron, had taken fire, and was speedily reduced to a cinder, while she herself felt a creeping sensation of numbness all down the right side,—which was the side next the table,—but especially in the right arm, her friend having escaped unhurt. Her clothes were neither burnt nor singed; neither were any marks left upon her skin. But this feeling of numbness has existed ever since, and the most remarkable part of it is that whatever kind of impression was produced upon her nervous system at the time, it has been followed by unusual symptoms of a lasting character. She states positively that in consequence of the persistence of the feeling above referred to, she can predict with the greatest certainty when the atmosphere is highly charged with electricity, as the numbness increases on these occasions, and she also feels "sick like to vomit"; but this latter symptom only occurs before and during a thunder-storm, more especially if it is close at hand.

Sensation and motion are unimpaired, and there is no wasting.—*Provincial Med. Jour.*, Aug. 2, 1886.

Brown (A. M.) on M. Gautier's Researches on the Cadaveric Alkaloids, in Relation to their Physiological and Pathological Significance.—Much weight must be attached to M. Gautier's work and teachings. For those interested or likely to feel interested in them, it will be well to know that this accomplished chemist has been long engaged upon the subject of the ptomaine alkaloids, and that it is to his researches we are most indebted for what we know of them as *leucomaines*. The following is a summary of his researches and conclusions as a whole, so far as they have been made known to us, or form the subject of consideration in the

recent *mémoire* laid before the *Académie de Médecine* of Paris.

The Ptomaines, or Cadaveric Alkaloids.—In the course of the putrefaction of animal tissues, there are always observable a certain number of poisonous alkaloid substances, which are formed at the expense of the albuminoid constituents. These alkaloids are either almost free of oxygen and volatile, or they are highly oxidized. Those that are the most important by their bulk and density belong to the classes pyridic and hydropyridic. The exact chemical constitution of those alkaloids, which are azotized, remains very uncertain, and nothing more is known of those which are highly oxidized, unless it be the *nervine* and *muscarine*, or *oxynervine*. These alkaloids of putrefaction vary according to the source or substance of decay from which they are derived; they also vary as to the period of their appearance after bacterial fermentation has set in. Whatever be the nature of the source—fleshy, fishy, or molluscous—the hydropyridic compounds are invariably present, and appear to be the product of those bacterides of most vitality, and which survive the others in the zymotic or fermentative processes.

The Leucomaines, or Cadaveric Alkaloids of Vital Origin.—Generalizing his researches, M. Gautier announced, in 1885, that with the excretions of healthy living animals there were substances of the nature of ptomaines almost uniformly present. He showed that the alkaloids of the urine of Leibrecht and Pauchet ought to be classified with the putrefactive alkaloids then known; he detected similar alkaloids in salivas and venoms. To these he gave the name of *leucomaines*, in order to distinguish them from the ptomaines, or cadaveric alkaloids. In a *mémoire* which he published in 1881, he pointed out what appeared to him the important relation which the products bore to the genesis of maladies, when their elimination by the kidneys, liver, skin, and intestinal mucous membrane was defective or suppressed.

With a view to confirming these preliminary observations, he again took up the study of the subject where he had left it, more carefully examining the muscular juices of the larger animals. He succeeded in adding to the list five new alkaloids, all perfectly defined, crystallized, and having a specific action on the nerve centres, more or less marked; inducing

somnolence, lassitude ; some of them even exciting vomiting and purgation—effects similar to those of poisonous alkaloids. He satisfied himself of the fact that these bases originate during life as naturally and legitimately as carbolic acid and urea. It only now remained for him to ascertain by what mechanism or process those alkaloids originate and assume their definite forms and characters ; how they comport themselves in the physiological, pathological, or putrefactive elementary correlations ; what follows from their incessant formation in the economy ; what becomes of them, and, finally, how the organism itself escapes their deleterious effects. In common with previous and contemporaneous scientists, he found the lines of the inquiry vague and disconnected. Here want of space forbids our following him ; we push on to his conclusions, and nothing in induction can be clearer.

While profiting by physiological facts acquired, and the knowledge that the oxygen of the atmosphere, by means of the respiration and the circulation of the blood, finds everywhere its way throughout the animal organism, he cannot admit, as is generally assumed, that animal life—in other words, the successive phenomena of assimilation and disassimilation of the tissues—consists entirely in this fact. M. Gautier holds that if the tissue transformations in inferior animals are almost wholly *aërobic*, the tissue transformations of the superior animals, on the contrary, are *anaërobic* in a notable proportion. According to conclusions hitherto accepted, this looks something like assumption, and seems paradoxical besides, but he carefully attacks the problem, and we think successfully ; the force of his conclusions, whether we regard them practically or theoretically, amount to demonstration.

Tissue Transformations in the Superior Animals.—Investigating on the lines here indicated, he has been enabled to show experimentally, that while four fifths of our internal combustions are the result of a veritable *aërobic* transformation analogous to, if not identical with, the oxydation of alcohol under the influence of *mycoderma vini* or *aceti*, the combustions, secretive and excretive, that remain (to the extent of one fifth) are produced at the cost of the tissues themselves, independently and exclusively of foreign oxygenous intervention ; in other words, that a portion of our living

tissues comport themselves precisely as ferments *anaërobic* or putrescent do. This point attained, he was naturally led to infer that, if the intimate organic life of such portion of animal tissue of cellular aggregates is independent of oxygenous supply from atmospheric sources, it resembles the bacterial ferments in the mode and manner of assimilating and disassimilating organized material, and we ought to find in the products of secretion and excretion, those substances that are to be met with in an *anaërobic* albuminoid fermentation—that is, the putrefactive fermentations ; and he shows, as a matter of fact, that this is so. In the normal secreta and excreta are to be found the whole of the products of putrefactive processes, properly so called, such as acids, carbonic and ammoniacal, in part free, in part in the form of salts, phenol, endol, scatol, of our fæcal and urinary excrements, the butyric, acetic, and other superior adipose acids ; the lactic, succinic, phenylactic acids of our muscular tissues, and in the glandular and renal secretions. In the processes of putrefaction, nitrogen, gases sulphuretted and phosphuretted, together with the hydrogen of the intestinal canal, are also to be met with. The identity is consequently complete, or nearly so, and he very logically asks, why ought we not to suspect and be able to detect the presence in the urine, glandular secretions, muscular fibres, etc., of these toxic alkaloids, whose history forms the subject of the remarkable *mémoire* he has recently submitted for the benefit of scientific workers.

He has here unmistakably ascertained their existence in operating in a wide area of animated nature ; venoms, salivas, various glandular secretions, those even of the silkworm, receiving close examination. Devoting special attention to the study of these in relation to the muscular tissues in the blood of man and the mammalia generally, he draws attention to the fact of the perceptible increase and accumulation of these alkaloids in the circulation, when from any cause, the bowels, kidney, liver, skin, etc., flag or become defective in their functional activity. He has further insisted that it is under these circumstances that they are permitted to exert their toxic action on the nervous centres, and so give rise to a great variety of morbid phenomena whose determinate successive development and combination, when considered as a

whole, make up the portraiture of particular cases or classes of cases of disease.

For those who give attention to the conservative character of our economic physiological principles, but know little of the organism's liability to perversion and deterioration by its own inherent forces, it will be pleasing to see how M. Gautier proceeds to show in what way in health a normal balance is preserved, how the body escapes disturbance and disintegration by processes purely auto-infective which are ever ready to declare themselves.

The Process by which Auto-Infection is Resisted.—M. Gautier goes on to show that the organism is enabled to resist the incessant dangers from auto-infection by two distinct methods : first, by the separation of the effete toxic elements, and their destruction by oxygenation more or less efficiently. Elimination by the kidneys more particularly betrays this fact, and this he strongly urges, for he has almost invariably found slight traces of ptomaines in the normal urine ; very slight, it is true. Some would even deny their presence, but it is attested by others besides himself, as also by the fact that they increase and become considerable in quantity in many pathological conditions. Creatinine, for example, has been extracted in cases of uræmia. Their elimination by the bowels seems to him just as certain ; though here, by reason of the difficulties of examination, it is less capable of demonstration.

The process which enables the economy to resist auto-infection from the alkaloids, and which he holds to be more powerful than elimination, is their incessant combustion in contact with the oxygen of the blood. For the most part, those deleterious compounds are markedly oxydizable, and it is under the vivifying influence of the incessantly maintained supply of oxygen, that they consume themselves and disappear, at least in part, facts which sufficiently explain why, under normal conditions, only traces of the muscular *leucomaines* are already detected in the urines ; in large proportion they having undergone combustion in the current of the circulation, if not in the tissues themselves.

In any case, if from any cause whatever the free and normal aëration of the blood is interfered with, or materially diminished, M. Gautier has always found the quantity of hæmoglobine decreased, as in anæmia and chlorosis, and should there be intro-

duced into the blood, substances which interfere with the *hæmatose* or blood-formation, immediately *materies* of the *ptomaine* and *leucomaine* order (or what resembles them), are generally found accompanying. The appearance of the *Allantoine* in the urine of dogs whose means of respiration has been gradually reduced—Frerichs and Stadelér—and the reality of asphyxic glycemia—Daster—is evidence of the fact.

The Practical Bearings of the subject on Medicine.—The physiological researches of M. Gautier as a chemist—fortunately for us—have taken a most important direction. Both as regards their special application to pathology and practical medicine, it is impossible to ignore the great value of his work to medical science. Labors in this direction have been considerable, but far from exact. M. Gautier's contributions will do much to remedy our position, and afford an explanation of the morbid phenomena we are daily called upon to deal with, and yet know but little of essentially. As examples of this take the nervous disturbances associated with anæmia, chlorosis, pregnancy, and the beneficial effect derived in such cases from the inhalation of pure air ; oxygen being often the sole means known for combating effectually the persistent vomiting, which arises from the retention of imperfectly burnt or imperfectly eliminated materials in the tissues of the blood. Again, it is not admissible for us to ask whether fever itself—which is coincident with the smallest alimentary consumption, and an inverse proportional increase of carbonic acid eliminated, and of oxygen consumed, with acceleration of the circulation to boot,—may not have for its physiological aim and object the destruction of those deleterious substances which, under certain conditions, are formed, or form themselves so abundantly in the economy?

Thus far it has been no small pleasure to follow M. Gautier in his lucid introductions ; and much averse as he is to venturing beyond the limits justified by a judicious scientific spirit of inquiry, based on data that are positively reliable, it only remains for us to acknowledge that to him belongs the largest share of merit in having indicated—without deducing all the pathological and therapeutic consequences legitimately available—the principles of those beneficent agencies which excite the functions of the kidneys, skin, and intestinal

mucous membrane, and what is still more important, the necessity of the constant disinfection of the economy by all that promotes the processes of respiration, and *hematose*, in other words, renewal of the healthy blood.

It only remains to be added that the work of M. Gautier is not yet completed. He feels convinced that, however actively poisonous to the animal economy the alkaloids we have been dealing with may be, there exist azotized substances, non-alkaloid, which accompany them, and are endowed with activities still more remarkable. He points out that Panum's septic poison contains little or no alkaloid; that the extractive and crystallizable matters are extremely toxic; furthermore, the essentially active principle of the venom of snakes, he believes, is nitrogenous, but not alkaloid. These substances are in other respects more important quantitatively than the ptomaines and the leucomaines oxidizable and azotized like them, and require that they should be studied still more closely than they have yet been. He expresses the firm conviction that their investigation will prove one of the most instructive sources reserved for the medicine of the future.—*The Prov. Med. Jour.*, Aug. 2, 1886.

Goodrich (A. R.) on Large Biliary Calculi.—I was first called to attend the patient, a woman of sixty-five, September 19, 1883. She was then suffering from the passage of biliary calculi.

The symptoms at the time were a general discoloration of the skin; severe pains in epigastric and lumbar regions; vomiting, etc.

The symptoms soon yielded to remedies, and in a few days she was able to attend to her household duties. No passage of calculi discovered. Again in April and May of 1884, the same symptoms were developed, but not of a severe nature. The yellowish discoloration of the skin has been a prominent symptom from the first attack.

I was again called to attend her Nov. 27, 1885. She was taken the day previous (Thursday) with the most intense pain in back and side, extending down the thighs, in fact all over the body as she expressed herself, followed by severe biliary vomiting, not being able to retain the smallest quantity of fluid on the stomach; skin intensely injected with bile, and all medicine

by mouth instantly rejected. I then resorted to hypodermic injection (Magendie's solution of morphia) in order to relieve her intense sufferings, giving her from 15 to 20 minims once or twice a day as the symptoms called for, with hot fomentations to back and bowels constantly applied, which in a measure gave temporary relief.

These symptoms continued more than five days, when they suddenly ceased.

She then fell into a profound sleep, continuing till the next morning. I saw her early, when she expressed herself perfectly relieved of all pain, and passing a quiet night. Much tenderness was experienced on attempting to move or bend the body.

Active laxatives were given, and the first movement brought away two large calculi. Assistance had to be rendered her to enable them to pass the sphincter.

The weight of one is one hundred and fifty-three grains, the other is one hundred and forty-three grains.

The measurements are, $1\frac{1}{8}$ inches in length, by $1\frac{3}{8}$ in diameter; the other $1\frac{1}{4}$ in length, by $1\frac{3}{8}$ in diameter.

All movements were thoroughly watched, but no other calculi were discovered.

Of all the many cases reported in Dr. Jackson's catalogue of the Warren Museum, Boston, Mass., there is only one specimen that is larger than these are; that was a case which occurred in Dr. Francis Collamore's practice, of Pembroke, Mass., in 1862.

"The calculus was of a barrel shape $1\frac{1}{2}$ inch by $1\frac{1}{4}$ inch, light-colored, remarkably compact and smooth upon the surface, from a lady over eighty-two years old; who was suddenly attacked with severe pains in the epigastric region, followed by nausea and vomiting. The symptoms continued for six days, but gradually diminished, and on the seventh day the calculus was passed from the bowels with two or three smaller ones.—*N. Eng. Med. Mo.*, July 15, 1886.

Hassall (A.) on Very Large Biliary Calculus.—Dr. Arthur Hassall was recently called in consultation, in conjunction with Dr. Edward Newton, by Dr. Martemucci, of San Remo, to a case of intestinal obstruction. This obstinately resisted all modes of treatment for some days, but at length a copious evacuation was obtained; this was fortunately carefully examined, and in it a large stone-like body was found. It was smooth and

polished on the surface, of a brown color, and of an ovoid form; it was 1.73 in. in length, and 0.90 in. in diameter. It weighed 247 grains, but the weight was not taken till a day or two after it was voided, when it had become considerably lighter from the evaporation of contained water. When broken into, it was found to be colorless, transparent, and beautifully crystalline, the crystals being concentrically arranged. On analysis, it was ascertained to consist entirely of cholesterine. The patient was at no time jaundiced, although the urine contained bile acids. The remarkable points of this case are the magnitude of the calculus, and the fact that it actually gave rise to obstinate intestinal obstruction. Cholesterine is readily affected by heat, and Dr. Hassall has thrown out the suggestion that possibly the escape of the calculus from the cystic duct might in such cases be facilitated by the slight softening and consequent moulding occasioned by the prolonged heat to which it was subjected while in the body.—*Lancet*, July 31, 1886.

Edwards (W. A.) on a Case of Intestinal Casts.—Susan H., aged thirty, light mulatto woman of good physique, weight one hundred and fifty pounds, married nine years ago, had one child, born in May (1884), made a good recovery. No miscarriages or history of uterine complaint. Has always enjoyed good health, is neither nervous nor hysterical, and gives no history of a hereditary taint of any kind. November, 1884 she suffered from a severe attack of dyspepsia, after which first passed an intestinal cast which was quite *fourteen* inches in length, and dark in color; it was thought to be a worm, and patient was treated accordingly. Since November has repeatedly passed casts; suffers no pain during or preceding passage; says that in last six months has passed a "bucketful" of them. No colic, tumefaction, or diarrhoea—in fact, bowels must be kept regular by the use of medicines. Blood never occurs in the discharges. Feels a sensation of "something moving" before cast is expelled; the passage of the casts has been almost constant for the last six months, not occurring in paroxysms. Patient says that she feels well, and were it not for the anxiety that her condition causes her, would consider herself in perfect health.

The microscopic appearances of such

casts are, according to Goodhart,¹ as follows: Under two-inch objective, surface is seen to be composed of opaque and translucent parts, the former apparently as round ridges, marking off the latter into regularly arranged hexagonal or polygonal crypts. Under a higher power these crypts are still visible, though much less well defined. These appearances are best seen in the small flakes of membrane, less distinctly in the larger masses, but not in the networks. They appear to be due to the formation of mucous and epithelial matter, either upon the surface of or in contact with some follicular mucous membrane.

The mouths of the follicles on the surface of the cast, when compared with the mucous membrane from a healthy piece of large intestine, present the following differences. They are much larger in the proportion of two or three to one, while the intervening tissue forming their wall is much less. There is also much less structural arrangement in the cells forming the walls in the membrane passed, and while in the healthy gut distinct basement membrane exists, no such membrane can be seen in the casts.—*Med. News*, Aug. 7, 1886.

Haynes (W. H.) on Congenital Tumor of the Rectum.—In vol. xxvi., page 584, of the *Medical Record*, there is reported the following case of *congenital hemorrhoid*, perhaps due to an inherited predisposition or maternal impression, and of an external variety:

"A female child was born of healthy parentage. The mother, a primipara, had always been the picture of health, excepting chronic constipation and its natural result, hemorrhoids, which have been many years a source of torment to her, and was naturally extremely aggravated by pregnancy. The child, otherwise well formed, presented at the verge of the anus on the right side, a fold of skin projecting three or four millimetres from the normal level of the epidermis, and five millimetres long by three broad. This is covered with healthy normal integument of natural color and sensibility. It is then an *imitation* of a pile just where the mother's most annoying tumor was located. The little tumor seems to be merely an excess of skin at

¹ "Casts from the Intestines." By James F. Goodhart. Trans. Path. Soc., London, 1872, xxiii., pp. 98, with 3 illustrations.

that point, and is in color and texture so like healthy skin as to show that it cannot be the result of inflammation. The mother was very anxious to know if her baby 'had piles,' and said she had been praying for months that her child might be spared an affliction which had caused its mother so much suffering."

I now take the opportunity of reporting a case of what may be termed an example of the internal variety of congenital hemorrhoids.

Mrs. H. was delivered of her second child, a female, which, on the day of its birth was noticed to have hanging from the anus, at each stool, a globular tumor about the size of a small cherry-stone. It was dark-red in color, and suspended by a short pedicle from just above the muco-cutaneous border of the anus within the rectum on its right side. No hemorrhage attended its appearance, and it was semi-solid to the touch. It was seized with a pair of forceps, which caused slight bleeding. A silk ligature was tied around the pedicle at its base. On the morning of the third day after this, the tumor fell off during a stool, and was thrown out with the excrement contained in the diaper. When I saw the child a few days later there was nothing unusual to be noticed about the anus except a little point of ulceration just within its border, at the seat of the former location of the tumor. There was no reason to suspect any predisposing influence other than that the mother was afflicted with internal hemorrhoids.

I have nowhere been able to find a case recorded similar to either of the above.

Objections may be raised to the term *congenital hemorrhoids*, yet it certainly succinctly describes both the conditions found better than any other that could be mentioned, although it may seem inconsistent to name a congenital growth after a disease, though they resemble each other in every respect except as to cause. It may be thought that the last was a case of polypus of the rectum; as to that, I would mention that its location and appearance were certainly not those of the soft gelatinous polypi met with in children, nor of the hard fibrous variety of tumor found in adult life, but it resembled more than any thing else what is erroneously termed "hemorrhoids or piles," and which is found in both young and old.

In neither case were the contents of the

tumors noted. Both patients were females. —*Med. News*, July 31, 1886.

Lewis (Geo. W.) on the Bacillus of Typhoid Fever.—The patient was a young man, seventeen years of age, who had passed through the various stages of the disease with unusual severity. The symptoms of each stage were well marked, and there was left no doubt as to the diagnosis. During the third week, the case was complicated by capillary bronchitis; the patient dying six days later. The post-mortem confirmed the diagnosis, and immediately cultivation experiments were begun.

The cultivating media employed were food-gelatine, blood serum, and the cut surfaces of boiled potatoes. I will say here that I made use of these media, not because they are the only ones in which micro-organisms can be artificially cultivated, but because they afforded a solid substance, in contradistinction to the many nutrient liquids which have been employed so much.

The ends of the organism are blunt and rounded, and I detected a slight constriction in the middle where the organism measured $\frac{1}{10}$ of a mm. in breadth. They commonly arrange themselves in filaments, sometimes extending across the entire field. Spore formation was present to a greater or less extent in all the preparations, and was always noticed at the ends of the rods. The threads were very active until overcome by the coloring material.

Of six mice and two rabbits inoculated with a pure culture of this organism, four of the mice and both rabbits died inside of nine days. The only pronounced symptom—and this was common to all except one rabbit—was the constant and exhausting diarrhoea. No marked changes were detected in the spleen or intestinal glands. —*Buffalo Med. and Surg. Jour.*, Aug., 1886.

Councilman (W. T.) on Certain Elements Found in the Blood of Malarial Fever.—It has long been known that changes in the blood occur in this disease. It is now known that in the red corpuscles there are certain bodies which appear to be living organisms, and these occur only in this disease. These are found by taking a drop of blood and spreading it on a slide, so that there shall be but a single layer of corpuscles. These are stained with a weak solution of fuchsin, and examined with a high power. The

nuclei of the white corpuscles will be intensely stained, the red slightly stained, and in some of the red corpuscles will be seen brightly stained bodies of irregular shape. These exhibit distinct amoeboid movements. The variety of their changes of form was illustrated by drawings. Certain hyaline bodies are also found and were described. The speaker then referred to the work of other investigators in this field, and gave a review of the results which they had obtained.—*Jour. Am. Med. Ass'n*, July 10, 1886.

Renant on Successive and Spontaneous Thrombosis Simulating Miliary Tubercle.—At a recent meeting of the Medico-Surgical Society of Paris, M. Renant read notes of a case of spontaneous thrombosis which simulated miliary tubercle. The patient, a young girl, aged eighteen, was admitted into his wards with a temperature of 40 C. (104° Fahr.). She was partially delirious during twelve days, but the delirium did not present any special feature; soon afterwards she had a stitch in the right side, the sputa were rusty, and she had all the symptoms of limited induration of the inferior lobe of the right lung. These symptoms of pneumonia were transitory and soon disappeared; gradually the fever disappeared, and on the thirtieth day there was phlegmasia of the right lower limb. M. Renant diagnosed miliary tuberculosis. He was quite certain that the patient had not brought on abortion. On the forty-fifth day after she was taken ill, all the symptoms of meningitis, typical of granular tuberculosis, were present. At the necropsy, nothing was observed but a few tubercles at the apex of one of the lungs, and a caseous bronchial gland slightly pressing on the aorta, which explained the systolic *souffle* observed during life. A thrombosis obliterated the right femoral vein; there was also a hæmoptoic infarct in the pulmonary region where induration was diagnosed. The infarct proceeded from a thrombosis of the minute branches of the pulmonary artery. The heart was healthy. There was also complete thrombosis of the superior longitudinal sinus. The lung-lesions can be accounted for by an infarct proceeding from the femoral vein, and creating the pulmonary infarct. The femoral thrombosis and that of the superior longitudinal sinus remain unexplained. M. Renant carefully sought at the necropsy for indications of

pneumonia, either old or recent, but failed to discover any.—*London Med. Record*, June 15, 1886.

Coats (J.) on Tuberculosis of a Pulmonary Vein Resulting in Acute Miliary Tuberculosis.—Margaret G., aged 7, was admitted to the Western Infirmary on 2d February, and died on 6th February, 1886. The fatal illness began on 25th January, although she had been failing in health for six weeks previously, as shown by loss of appetite, loss of flesh, paleness, etc. She remained in school, however, till about the 19th January, when a doctor said she had "inflammation of the right side, the left also being affected." She improved on taking to bed, but became suddenly much worse on 25th January. On admission, she was affected with dyspnœa, with duskiness of the face, and herpes on lips and nose. The pulse was weak and rapid (148), and the temperature 102.2°. There was little cough, and no spit. She was very restless, tossing about, gnashing her teeth, and crying out. There was a trace of albumen in the urine. Evidences of consolidation were found at the left apex, most marked in front, with abundant fine mucous râles all over the chest. She gradually sank, and died four days after admission.

We have here a history of a preliminary illness extending over six weeks, and diagnosed after four weeks as an inflammation of the left side. Then there is the sudden development of an acute illness which proved fatal in twelve days. During life, evidences of consolidation were made out at the apex of the right lung.

Post-mortem examination.—The body is rather spare. The right ventricle is somewhat dilated, and in both ventricle and auricle, there are several globular thrombi, one at the extreme apex of the ventricle of considerable size and softened in the centre, and another of larger size in the anterior parts of the auricle, this latter being three quarters of an inch in diameter. The tricuspid orifice is rather wide, admitting three fingers, while the mitral admits one.

Both lungs are non-adherent, and on section present, from apex to base, innumerable miliary tubercles, which are so closely set as, in some parts, to be almost continuous. In the upper lobe of the left lung the tubercles are very close, so as to make an approach to condensation, and there is here also caseous transformation. On mak-

ing the original section of this lung, a blood-vessel is laid open, which is distinguished as a branch of the pulmonary vein about the size of a large crow-quill. On the wall of this there is an elongated, yellow caseous body, which, in its outline, somewhat resembles a thrombus. It is smooth on the surface, and there is no layer of fibrine between it and the calibre of the vessel, which is here unimpaired, except by the projection of the yellow mass.

The liver shows on the surface innumerable minute white nodules, some of them with little tags of connective tissue supporting them. On looking closely, minute nodules can be seen beneath the capsule. On section, there are tubercles visible, and with the microscope they are found to be very numerous. The kidneys present numerous very small tubercles, many of which are visible at the surface. The spleen presents on its cut surface a number of yellow nodules.

The brain was not examined, as the friends objected. — *Glasgow Med. Jour.*, July, 1886.

Wigglesworth (J.) on a Brain from a Case of Sensory Aphasia.—A female patient, sixty-five years old, was subject to the amnesic or sensory form of aphasia, as distinguished from the ataxic, or motor form. She could recite numerous words and sentences, but failed to properly apply them, her conversation in consequence becoming very incoherent. She had no power of naming even a common object, being unable to recognize the name even when reminded of it, although she could sometimes indicate the use of a thing when she was unable to name it. She often answered "yes," or "no," or "Mary" (her Christian name) to a number of questions quite inappropriately. She could neither read nor write from copy or dictation. She was partly conscious of her defects, and exhibited much emotional excitability at her repeated failures to make herself understood. The *left hemisphere* presented a deep depression occupying the situation of the inferior parietal lobule, and encroaching upon the temporo-sphenoidal lobe. The depression was due to the destruction and absorption of convolutions in this area. The convolutions indicated were the *supra-marginal*, the posterior, three quarters of which, or, rather, more, had been destroyed; the *angular*, the anterior, three quarters of which had gone, and the first temporo-sphenoidal, the

posterior half of which had disappeared. The destruction of brain-tissue was not confined to the outer aspects of the convolutions, but extended into the white matter almost down to the lateral ventricle, there being, in some places, a layer not more than a line in thickness between the inner surface of the ventricle and the outer surface of the cerebrum. The destruction of tissue appeared to have been due to neurotic softening, occasioned by the cutting off of the blood supply by the obstruction of the vessel supplying the area in question, the cerebral arteries exhibiting considerable degeneration. — *Provinc. Med. Jour.*, July 1, 1886.

SURGERY.

Bull (W. T.) on the Radical Cure of Hydrocele by Antiseptic Incision.

—I have operated on fourteen patients in all. One case may be thrown out of consideration, since the cure of a large reducible hernia was attempted at the same time, and the patient died from peritonitis. Of the thirteen patients, all made satisfactory recoveries but one. This was a laboring man, forty-two years of age, somewhat debilitated from exposure and lack of food, but presenting no signs of organic disease of the internal organs, who had had double hydrocele for six months. Both sides were operated on at once; the wound was irrigated moderately with 1 to 5,000 solution of bichloride of mercury, and a dressing of bichloride gauze was applied. In forty-eight hours diarrhoea occurred. This was followed by vomiting, abdominal pain, and tympanites, and on the fourth day he died. At the autopsy there were found only the evidences of violent gastro-enteritis, the rectum containing several patches of gangrenous mucous membrane.

In ten cases Volkmann's operation was done; in two (the cysts of the cord and epididymis) the entire parietal layer of the tunica vaginalis was excised. Bichloride of mercury of the strength of 1 to 5,000 was used in moderation to irrigate the wounds, and extreme care taken to tie all bleeding points. The incisions were long enough to reach from the top of the sac to the bottom of the scrotum. The tunica vaginalis was united by a continuous catgut suture to the skin, and two or three deeper sutures were applied to hold the

two halves of the sac in contact. A further effort was made in this direction by the application of the dressing in such a way as to *hold* the serous surfaces together. Bone tubes were used in three cases, rubber drains in nine. And here I may say that the latter were shown to be preferable. The bone tubes softened rapidly, but were not absorbed at all, and did not adapt themselves to the sinuosities of the wound. The dressing was uniformly of peat-bags (with bichloride) and bichloride gauze, with occasionally a strip of iodoform gauze over the line of the suture, and an outer layer of absorbent cotton. There was no instance of excoriation or marked erythema of the skin. The penis protruded through the middle of the dressing, which was applied snugly with crinoline bandages. One or two patients had to be catheterized for twenty-four or forty-eight hours; but this was the only discomfort experienced. The career of the wounds was in all cases aseptic, and without fever. A temperature of 100.6° on the evening of the second to third day, without any acceleration of the pulse, was the greatest constitutional disturbance. With little variation, the first dressing remained in place till the seventh day. On its removal the tubes were withdrawn, and a lighter dressing of iodoform or boric acid ointment and plain absorbent cotton was applied, supported by a suspensory bandage. This was changed as often as it became soiled. The patients were allowed to move about a day or two later, but were not, with one or two exceptions, discharged till the sinuses were healed. As a rule, primary union was found on removing the first dressing. In six cases this was *complete* except where the drainage-tube emerged; in five, besides the "drain sinus," there was a strip of granulations along a portion of the line of suture, forming a quite superficial ulcer, which scabbed over rapidly. In one case primary union was secured, but an accumulation of pus (without fever) made it necessary to break down the adhesion, and the abscess required two months to heal. The sinuses left after removal of the drain healed without special attention. There was no instance of orchitis, or epididymitis, or inguinal adenitis, and the induration and thickening along the cord, which had been noted by others, disappeared by the time the sinus closed, or soon after.

As regards the *time* occupied by the treatment, I find that the shortest period of confinement to bed was seven days, the longest three weeks; the average stay in bed in all twelve cases was ten days. The shortest stay in hospital was ten days, the longest sixty days, the average twenty-seven days. Two cases were much slower in healing than the rest—one from the occurrence of the abscess just referred to, the other from unexplained causes. I think with proper care the ordinary case could be expected to get through in three weeks. I have had the opportunity of examining five of these patients one year after the operation, and they remain cured. Two have been seen six months, two others four months after operation, and are free from recurrence. Of the remaining three I have no information. I may state further that all were operated upon under ether except one. In this case cocaine was used, with the effect of rendering the operation absolutely painless.

The result of the treatment of these thirteen patients may be briefly stated as follows: One has died from mercurial poisoning. Twelve have recovered—ten after incision with suture, two after excision of the sac. The wounds, except in one case, have healed without pain or constitutional disturbance, and, on an average, in twenty-seven days, ten of which were spent in bed. Nine out of twelve patients are known to have had no recurrence at a period of from four to twelve months after the operation.

The small percentage of failures after the antiseptic incision shows it to be, in my opinion, incontestably the *surest* way of curing any form of hydrocele; and if we add to this operation the extirpation of the tunica vaginalis, the method would be absolutely free from any recurrence. But it is certainly not without risk. Even with its small percentage of deaths—.82 per cent.—it makes a wound of considerable extent, which exposes the patient to all the accidents of wound-healing; it necessitates, if one acts with due caution, longer confinement to bed, and demands rigorous attention to, and every facility for, antiseptic treatment. In view of these considerations, I shall be disposed in the future to reserve the operation for cases in which the injection method has failed, or to perform it upon patients who, with the knowledge of its chances, prefer to take them.—*Annals of Surgery*, July, 1886.

Von Donhoff (E.) on a Rapid Method in Fractures.—Nearly eight years ago I presented to the Medico-Chirurgical Society of Louisville a paper upon the subject of "Fractures," the more salient purport of which was to direct attention to certain rapid successes attainable in the management of such injuries of the elbow-joint; and, in this connection, pointed out the propriety of early abandoning the maintenance of fixed dressings in fractures generally. Since then I have offered two or three additional writings on this subject, one of which was first published in the *Louisville Medical News*.¹

My treatment is as follows:

First.—Strips of sole-leather or gutta-percha (tin will answer also) of suitable breadth and length being at hand, these are immersed in hot water and adjusted by means of a roller to the site of the fracture, previously reduced and properly swathed in cotton-wool; the latter should be secured in position by a few turns about it with sewing-thread. [Anæsthesia is a *sine qua non* to the proper manipulation and reduction of fractures.]

Second.—If no suggestive incident intervene—such as shortening, angularity, or great uneasiness and pain—the *first* dressing in cases of fracture of the shaft of long bones should not be removed until the tenth day, but should never be permitted to remain longer than the sixth day in similar injuries of joints.

Third.—On the fourteenth day, *having cases in which untoward diathetic or local influences have been demonstrated to exist*, it will be found that the fragments are fixed and that the dressing may be dispensed with altogether, except in fracture involving joints; in these the splints, properly stitched together, should be readjusted on going to bed, in order that the unconscious and possibly violent movements of the patient may not prove disastrous during the ensuing week.

Fourth.—Gentle, passive motion of fractured joints should be begun *at least as early as the sixth day after the first dressing*, and practised every second day thereafter until the fourteenth, increasing the degree of motion as may be suggested by the judgment of the surgeon. After this date, the matter of moving the limb may be relegated to the inclination of the patient,

unless he be too timid, when he may safely be encouraged to handle light objects and practise normal motions of the limb.

Fifth.—The average duration of treatment need not exceed twenty-eight days under ordinary circumstances.

The above rules of practice have proven equally reliable in the treatment of compound fractures produced in osteotomies, done for the correction of deformities, near the ends or in the continuity of long bones.

Sixth.—The posture of the limb should be that best adapted to muscular equipoise—straight or in an obtuse angle.

Many cases of fractures will require a conservative application of the rules offered above. Such are those complicated by diathesis by laceration of large blood-vessels, or extensive and deep lacerations and contusions of the soft parts. These contra-indicating circumstances are at the finger-tips of every one. But, as has been shown, ordinary simple or compound fractures, accidental or artificial, do not militate against the practice. All of the evils attendant upon orthodox rules in this connection are perfectly avoided. Anchyloses of elbows, wrists, fingers, ankles, toes, so distressing to surgeon and patient, as ordinarily due simply to long and unnecessary confinement in fixed apparatus, are obliterated (?) from the vista of experience.

The saving of time to patients is a question of minor importance perhaps (?) to the surgeon, but of the greatest moment to the unfortunates; no matter in what social walk they be found, or whether they are adults, necessitated to earn livings, or children requiring vigilance on the part of attendants. The greater or less degree of muscular atrophy incident to long disuse under the "old method" is an unknown factor in the clinical history of the "rapid method"; so that when the patient is finally dismissed in pursuance with the latter course, every muscle of the injured limb will be found to have perfect physiological function.—*Progress*, Aug., 1886.

Championnière (J. L.) on a New Treatment of Fractures of the Radius and Fibula, and of Fractures Near Joints.—His innovations are mobilization and massage. He says:

"Immobilization in the treatment of fractures is habitually too long and much too general. In intra- and para-articular

¹ June 20, 1885.

fractures it is dangerous. Except in case of great displacement fractures of the radius and fibula need no immobilization. Massage relieves the pain, favors union, and hastens the cure. Passive motion prevents stiffness, pain, and prolonged uselessness of the member. Fractures near articulations should be speedily mobilized and treated by massage."

He recommends such treatment even for fractures complicated by wounds.—*L'Union Méd.*, July 6, 1886.

Larger on the Treatment of Sprains.

—Before the Soc. of Surgery, July 21, 1886, Dr. Larger advocated the use of alternate applications of Esmarch's bandage and cotton wadding. Five or six days accomplished a cure.

Terrier spoke of massage in fracture of the fibula without displacement. One patient was cured in sixteen, one in twenty-one days.—*Paris Méd.*, July 31, 1886.

Loumeau (M.), Remarkable Accident while Tapping a Hydrocele.

A rare and remarkable accident during the operation of tapping a hydrocele is reported from Bordeaux. The patient was a healthy peasant of forty-four years of age, who had never suffered from any venereal affection. The hydrocele, which was on the right side, had been in existence some two years, and had followed an accidental blow. When the trocar was introduced, about 125 grammes of straw-colored fluid came away. M. Loumeau who performed the operation in M. Boursier's presence, then, having satisfied himself that the extremity of the cannula was free in the cavity of the tunica vaginalis, proceeded to inject gently sixty grammes of a mixture of tincture of iodine with twice its volume of water. All at once the patient complained of severe pain in the cord and the loins, with cramp in the right forearm. The ulnar border of the right hand then became flexed, the ring and small fingers being completely flexed, while the index and middle fingers, though extended as far as the second and third phalanges were concerned, were flexed at their metacarpophalangeal articulations. The thumb also was flexed and brought near the fingers. Exactly the same position was shortly afterwards assumed by the left hand. There were no convulsions or syncope. After a few minutes the "ulnar griffe" began to relax, and the index and middle fingers became flexed completely on the

hand, which itself became strongly flexed on the forearm. All the muscles on the front of the forearm became hard and contracted. The palmar fascia was strongly retracted, and the palmaris brevis quite tense. On both sides the ulnar affection had given place to contraction of the muscles supplied by the median nerve. The patient was unable to articulate a sound, his tongue hanging loosely in the buccal cavity. The muscles supplied by the hypoglossal nerve were also contracted, but for a short time only. The forearms were shampooed, and after nearly an hour the muscles relaxed. The patient recovered completely, and left the hospital after a few days.—*Lancet*, July 31, 1886.

Ratton on Avulsion of Scrotum.

The scrotum, together with the skin of the penis, was torn off by revolving rollers, leaving the penis, testicles, and the perineum as far as the anus, denuded. There was little bleeding, and the testicles were not even tender. The wound showed a tendency to heal well under corrosive sublimate and boracic dressings. Dr. Ratton pointed out that the scrotum came away precisely in the lines of the incision employed for the removal of the elephantoid scrotum. The steps of the operation were, however, reversed; for, in the accident, the scrotum was first removed. He discussed the question whether there would be any advantage in performing the operation in this reversed method, but decided in the negative. Mr. Branfoot recalled a somewhat similar case in Guy's Hospital, where the scrotum had been encircled by a knife, and the skin of the penis torn away, together with the scrotum. Fright would cause retraction of the testicles, which might thus escape injury.—*Brit. Medical Jour.*, July 10, 1886.

Lowndes (F. W.) on the Treatment of Orchitis and Epididymitis.

—For eleven years my treatment has been that which was suggested by Mr. Furneaux Jordan in 1869—viz., by painting the affected testicle with a strong solution of nitrate of silver (two drachms to one ounce), at the same time enforcing strict rest in bed and supporting the inflamed organ upon a small pillow, so as to prevent it from hanging down. I have always found the treatment I have mentioned most successful. The acute pain, often amounting to agony, is soon subdued, and in the majority of cases the testicle returns to its

normal size in the course of a few days. Sometimes a second painting is necessary, but this suffices. In private practice I have always used the same application. When patients can be induced to take absolute rest in bed, the result is equally successful as in the hospital. When, however, patients are compelled to follow their usual occupations the recovery must obviously be slower, as it is impossible by any suspensory bandages or by handkerchiefs, however skilfully applied, to ensure perfect rest for the testicle as when the patient is lying in bed. I have heard it argued that rest in bed is sufficient of itself to effect a cure, but a very few cases so treated with spirit lotion as an application has convinced me that it is not so. The immediate effects of the nitrate in allaying the pain are most marked, though for obvious reasons the nitrate must act more powerfully upon the testicle while in a state of quiescence than when constantly moved, however slightly.—*Lancet*, July 24, 1886.

Taggart (H. D.) on the Treatment of Flesh Wounds.—Let us keep our wounds decently clean, and use sedative, stimulant, antiseptic, and detergent medicines only, in the order indicated by the conditions met with. This I call the rational plan; it must always succeed.

Most wounds met with in every-day practice, accidental and those made by the surgeon, require wet dressing for a greater or less period. This should possess several positive qualities; it need not be strongly germicide, but it should be positive antiseptic. It will be antiseptic in a degree, if liberally used. It matters little what watery solution be employed, but when you add twelve and one half per cent. glycerine to your lotion, the dressings never become dry and leathery, penning up the discharges; now the lotion is becoming positively antiseptic, because it insures drainage.

But here is the one article which, of all others known to me, is necessary to make the lotion perfect—chloral hydrate. This is my prescription:

℞ Chloral hydrate	3 j.
Glycerinæ	3 j.
Aq. font. vel. dest., q.s. ad . . .	3 viij.

This lotion will be found to be of proper strength for fresh wounds; if made stronger it will cause smarting, but will not act as a caustic.

Chloral solution is positively stimulant and antiseptic locally, and not sedative or anæsthetic as many suppose. It is cheap, clean, and, above all, reliable. No wound of external soft parts can give forth any fetor if the above combination be used.

From the first, the flesh will take on a beautiful pink color, and until the parts are healed the only odor encountered will be that of clean, raw flesh.—*Columbus Med. Jour.*, Aug., 1886.

Keen (Wm. W.) on Stretching the Facial Nerve.—All of the cases reported were operated on for more or less extensive tic non douloureux of the face, lasting from two to ten years. In two cases paralysis of the face preceded the convulsive tic, and in one case tic douloureux followed the tic convulsif. The operation is free from danger; no death has resulted; no serious complications, and, in fact, no serious illness. Paralysis of the facial muscles more or less complete both in degree and extent is always to be expected, indeed, desired. But this paralysis has disappeared in every case after a few days, weeks, or months, and in two cases in which prior to the operation paralysis had existed, some degree of voluntary and electrical control was attained. Indeed, this fact, together with the experimental results before referred to as to the effect of moderate stretching in increasing nerve irritability, lead me to suggest that it would be highly proper in some obstinate cases of facial palsy, to stretch the seventh nerve as a therapeutic operation.

In two cases no paralysis resulted, and in one case it disappeared in half an hour, yet in the former cases there was decided permanent improvement, and in the latter case a cure lasting for two years and eight months.

In such cases as have been examined electrically, the reactions of degeneration have been found, but these have diminished as the nerve was regenerated, and have disappeared after some months. This is also in accordance with the results of experimental nerve stretching in animals in which microscopic examinations have been made.

As a palliative operation its results are as follows:

In fourteen cases with: 1. Absolute relief under a week. Three cases, followed by improvement for two years in one case and no improvement in the other two. 2. Absolute relief three weeks to four months.

Five cases, followed by improvement in four cases and no improvement in one. 3. Absolute relief four months to a year. Six cases, followed by improvement in three and no improvement in three.

As a palliative operation only, therefore, it is well worth doing, since, at no risk of life and but little suffering, the relief is often prolonged, and if the spasms return it is with lessened severity.

As a means of permanent cure, we have two cases of relief, when last reported, for three months, and three of relief for from two to five years, together with one case lost sight of after three days, and my case still cured two and a half months after the operation.—*Annals of Surgery*, July, 1886.

MISCELLANEOUS.

Streeter (F. B.) on the Radical Cure of Hernia by a Bubo.—Aged thirty-five years, Irish-American, canal-boat captain by occupation, while loading his boat in the summer of 1882 sustained a severe strain which resulted in a direct inguinal hernia of the left side. It was easily reduced and retained by a truss. In the summer of 1883 he again consulted me, this time for a bubo on the same side. After a long period of extensive inflammation with suppuration, during which he was unable to wear a truss, he recovered from his bubo, and from his hernia as well. Up to the present time his hernia has not recurred, although he is engaged in the heaviest labor. A suitable case presenting itself, I propose to try the effect of vaccination, although I hardly expect to gain results equal to those obtained by the "bubo" treatment.—*N. Y. Med. Record*, Aug. 17, 1886.

[See Persian method of cure of hernia, ANALECTIC for July, 1886, p. 317.—Ed.]

Grigg (W. C.) on Dangers Arising from Disease of the Uterine Appendages in Childbed.—On reviewing these cases one cannot help feeling that, perhaps, disease of the uterine appendages might account for many of those inexplicable cases of so-called sporadic puerperal septicæmia, which seem to defy any conjecture as to their origin. Should subsequent experience confirm mine, it will place the importance of recognizing diseases of the appendages in another light, and it will be a strong argument in favor of their removal when found diseased, and it

will require of those who condemn the operation to reconsider their position.

The cases detailed in the paper were :

1. A multilocular cyst of right ovary containing pus.

2. Abscesses of the left ovary and pyosalpinx.

3. Ruptured ovarian cyst and old standing pelvic cellulitis.

4. Chronic inflammation of broad ligaments and Fallopian tubes causing pressure on ureters, eclampsia.—*Medical Press and Circ.*, June 30, 1886.

Buck (A. H.) on Painless and only Slightly Painful Ulceration of the Membrana Tympani, Probably of a Tubercular Nature.—The author called attention to the features by which the early stage of tubercular disease of the membrana tympani could be recognized. Three cases had been seen. The patients were in a condition of fair general health; one of them had disease of the vertebræ. No evidence of pulmonary disease was found in either of the three cases. Tinnitus and slight impairment of hearing were the first symptoms noticed.

In two of the cases which were examined at an early period there were slight redness and swelling at the upper part of the membrana tympani and of the skin covering the bony wall. In a short time the infiltration extended into the entire posterior superior quadrant. The membrane became bulging, and at the most prominent point a perforation established itself.

In the incipient stage the distinguishing features are the tendency to localization in the upper posterior portion of the membrana tympani, the marked insignificance of the pain or even its entire absence, and the intolerance to all but the simplest local measures.—*Med. News*, July 31, 1886.

Bull (C. S.) An Analysis of One Hundred Cases of Exudative Retinitis Occurring in the Course of Bright's Disease.—Only such cases were included in the report as had been examined by the writer and had been followed to their termination. All cases due to scarlatina or pregnancy were excluded. Out of 500 cases examined only 108 fulfilled these conditions. The ophthalmoscopic examinations were made by the author, and the urine was always examined. In 54 of the cases both eyes were affected when the patient came under observation, and in 93 per cent. both eyes were ulti-

mately involved. Hemorrhages occurred in 69 cases. In 34 cases there were no hemorrhages. The hemorrhages were intimately connected with disease of the blood-vessels. Only one instance of color affection was observed.

The prognosis with reference to the duration of life is very unfavorable. The 113 cases reported were collected during a period of thirteen years; of this number 86 have died, 57 during the first year and 12 during the second year; 17 were still living, but 14 of these presented themselves within the last six months. One of these cases, however, was seen for the first time seven years ago. A rather unusual complication was seen in four of the cases. That was the presence of sugar as well as albumen in the urine. The amount of sugar was variable.—*Med. News*, July 31, 1886.

Coggins (D.) on the Protracted Action of Hydrobromate of Homatropine in Spasm of the Accommodation.—May 15th.—Mr. H., æt. thirty, a remarkably vigorous-appearing man, has complained for some months of dimness of sight when playing billiards and when out driving, and occasionally he has had diplopia. Is accustomed to read and study till late at night. V. = Sn. 8. at 4. L. E. and 12. at 4. R. E. and vertical lines seen the best. A. = 8. D. with—. 75 D. = 4. at 4. o. u. and the lines all clear. Overcomes 12° prisms only, base out.

H. by shadow-test,—but I could not measure it. A drop of a recently prepared solution of hydrobromate of homatropine (1:60) was instilled in both eyes (the patient having declined the use of atropine) and twice repeated at intervals of ten minutes, when there was complete paralysis of the accommodation. Sn. 4 was then readily read at 4. and with + 4. D. Sn. 50.

May 22d.—Mr. H. was unable to read ordinary type until four days had elapsed after the accommodation was paralyzed. V. = 3. (in part) at 4., and .50 at .70.

My experience with homatropine has been limited, but probably its action on the ciliary muscle is very rarely so prolonged as it was in this instance.—*Am. Jr. Ophthalmol.*, July, 1886.

Johnston (R. M.) and Cotterill (J. M.) on Intra-tracheal Tumor.—Sooner or later these cases tend to destroy life by suffocation, unless some operation for their removal is resorted to.

When the tumor is small and high up in

the trachea, it may, in some cases, be cured by the application of the galvano-cautery, with the help of the laryngoscope, though in one of three cases reported by Dr. Morell Mackenzie he reports that the vocal cords were injured by the cautery. Dr. Mackenzie also states that three out of the four cases which he had seen were papillomata, and not fibromata.

Unless the tumor is very high up in the trachea, the first step of the operation should be to open the trachea *above* the tumor. One can then judge exactly by sight or touch of its precise position and nature, and ensure the second and lower opening for the introduction of the tube being made accurately below the tumor. The tumor can then safely be removed through the upper opening, while the lower opening gives one an opportunity of plugging the trachea and preventing hemorrhage into the lungs.

When a tube can be inserted below the tumor, the growth is best removed by forceps or otherwise at once; but when a tube cannot be put below, it may be safer to attack the growth through the tracheal wound with galvano-cautery. This method obviates the chance of bleeding, allows the application pressure by a plug of lint to the bleeding stump.

It also obviates the risk of injuring the vocal cords with the cautery.

The application of caustics to the stump of the tumor is probably uncalled for.—*Edinburgh Med. Jour.*, June, 1886.

BOOK NOTICES.

A Manual of Practical Therapeutics Considered with Reference to the Articles of the Materia Medica.—By EDWARD JOHN WARING, C.I.E., M.D., etc. Edited by DUDLEY W. BUXTON, M.D., B.S., etc. Fourth edition, pp. 666. Cloth \$3.00, sheep \$3.50. P. Blakiston, Son, & Co., Philadelphia.

The first edition of this work appeared thirty-two years ago, and its prolonged existence and successive editions are no mean tribute to the value of the work. A long professional life in the Indian army has left its imprint on the pages of the book in the way of making it eminently practical in tone throughout.

This places it among the old school-books which are very rapidly—and we say it with sincere regret—going out of print.

Based, as the book is, upon materia medica, an alphabetical classification is employed which, as all other methods are so faulty, is perhaps the best of all, at least for a reference book for graduates.

Based upon *materia medica*, it does not bother at all with *materia medica*, an example to be commended in any work on therapeutics which some of our modern authors would do well to follow.

The Latin name and its synonyms head each article, which commences with the medical properties and action of the drug in breviter type, in which also are printed the dosage, contra-indications, and rules for administration. Next come the therapeutic uses, which constitute the bulk of the book, in long primer type. This apparent subordination of the physiological action of drugs to clinical and even empirical knowledge is due not to an unbelief but to an acquaintance with the many grave objections and fallacies to which experimentation on animals is open.

It is rare, perhaps unknown, to have combined in one man knowledge derived from experience and that derived from experimentation. The former, as a general thing, commends itself to the average man as the best and safest guide. A proper admixture of the two is safer still, but that must needs be the outcome of critical compilation.

The errata, nine in number, are all due to confounding the symbols for drachm and ounce (3 and 3), errors of great importance in dosage, and certainly an unanswerable argument against the old system of weights and measures. The book as a whole contains little to criticise and much to commend.

R. W. A.

The Annals of Hygiene.—A monthly journal devoted to the fostering of preventive science and the preservation of health. Edited by JOSEPH F. EDWARDS, M.D. An octavo journal of 38 pp. \$2.00 per year, single numbers 20 cents.

Vol. I., No. 7, contains twenty articles of more than ordinary merit to all interested in sanitary science.

The office is at No. 224 South Sixteenth St., Phila., Pa.

PUBLISHERS' NOTES.

Horsford's Acid Phosphate.—I have used Horsford's Acid Phosphate in my practice for the past eight or ten years, and have been much gratified with the results obtained from its use. In various forms of dyspepsia it reaches a class of cases that no other medicine seems to touch, and I have repeatedly seen patients, where opiates were contra-indicated, obtain refreshing sleep and rest at night from a single dose at bedtime. Dr. W. S. LEONARD, Hinsdale, N. H.

Pinus Canadensis—Gonorrhœa and Granular Ulcerations.—I have used Kennedy's Pinus Canadensis in gonorrhœa most successfully. I am now treating cases of chronic cervical endometritis, with granular ulcerations, and think it particularly indicated there. It was in such practice, I believe, which elicited Sims' encomiums of its merits. T. N. CLARK, M.D., Reagan, Tex.

Lactopeptine.—

PHILADELPHIA, Pa., May 30, 1878.

I have found great satisfaction in the use of Lactopeptine, and have ordered it frequently in cases of dyspepsia, especially where there is want of tone and defective secretion.

JOHN H. PACKARD, M.D.,
Pres. Pa. Co. Obstet. Society; Surg. Episcopal and Women's Hospital.

Colden's Beef Tonic.—Having become familiar with "Colden's Liquid Beef Tonic," I take pleasure in recommending it as an excellent preparation, combining as it does food tonic in a remarkable way, producing good blood, health, and strength.

S. W. HUNTER, M.D.,
Baltimore, Md.

Guaiac, Stillingia, etc.—Physicians having any stubborn cases of rheumatism, gout, lumbago, and the various forms of neuralgia, should not fail to give this preparation a trial. See advertisement on another page.

Viburnum Compound.—This is described as an invaluable remedy for dysmenorrhœa and menorrhagia, and has been recognized as such by a very large number of the leading physicians of America; send for hand-book, mentioning ANALECTIC.

Cod-Liver Oil Tonic.—In prescribing cod-liver oil, if you order Scott's Emulsion, you will give your patient not only a pure oil, but a combination holding the hypophosphites of lime and soda in intimate mixture.

Iron Alum Mass.—I believe the "Seven Springs Iron Alum Mass" to be the best remedy we have for diseases peculiar to females and uterine complaints. GEO. M. D. PATTERSON, M.D., Englewood, Tex.

Crust Pepsin.—This new pharmaceutical preparation, although but a short time before the profession, has made for itself an enviable reputation. Send for particulars to Wm. F. Kidder & Co., New York.

Peacock's Bromides.—I have the pleasure to say that I have used Peacock's Bromides with entire success in vertigo and congestive headache in the case of my wife. It is the best brain and nerve sedative I ever used. A. L. ANDERSON, M.D., Rhea Springs, Tenn.

Operating Chair.—The conveniences of having an adjustable chair in one's office, for purposes to which the Klein chair made in Chicago, is adapted, will be appreciated if Mr. Klein's circular be read.

THE MEDICAL ANALECTIC

A
MONTHLY EPITOME OF PROGRESS IN ALL DIVISIONS OF
MEDICO-CHIRURGICAL PRACTICE

EDITED BY
R. W. AMIDON, M.D.

VOL. III., No. 9.

September, 1886.

WHOLE No. 33.

LEADING ARTICLES.

Brunton (T. L.) on the Connection between Chemical Constitution and Physiological Action.—In his most instructive and scientific address, delivered at the opening of the section of Pharmacology and Therapeutics at the annual meeting in Brighton, Dr. Lauder Brunton has taken up this most interesting subject, and he has succeeded, we think, in making it easy of comprehension, even by a comparatively unscientific mind.

Just, he said, as the advancement of civilization is usually divided into four stages, characterized by the nature of the tools or weapons employed by mankind, so we may fairly recognize four stages in the development of the implements used by man in the treatment of disease. Crude drugs, prepared in the roughest way, were made use of in the first stage; in the next, their more active and more manageable forms, such as watery or alcoholic extracts or solutions; in the third, their pure active principles; and in the fourth, artificial products possessing the particular action which we desire.

But these different forms of drugs need not necessarily be dissociated, but may often with advantage be used at the same time; the modern tendency, however, being for crude drugs to be less and less used, and their place taken by pure active principles. We are, so to speak, in the bronze age of pharmacology, and just entering upon the iron age, which latter may fairly be said to have begun twenty years ago, with the researches of Professors Fraser and Crum Brown upon the connection between physiological action and chemical constitution.

To simplify his explanations of some of the recent advances made in pharmacology, Dr. Brunton made use of the capital simile

of the three-toothed "flesh-hook," used in connection with the "flesh-pots of Shiloh." The custom, when a sacrifice was offered, was to strike this flesh-hook into the cauldron or pot; and all that the hooks brought up the priest took to himself.

Of course, it is obvious that what would thus be brought up would depend greatly on the contents of the pot and on the nature of the hook, the character of the handle also being of importance. Now, in the drugs used in medicine, a certain analogy may be drawn with these flesh-hooks, some parts of the drugs being comparable to the hooks, and others to the handle; the hooks, further, having movable points which could be taken off and replaced by others of a different form or sharpness. As changes in the material brought up would follow alterations in the shank as well as in the prongs of the fish-hook, so, in like manner, different effects would result from drugs by varying the molecular weight of their basic radicles, or by altering the elements or radicles combined with these. We must refer the reader to the lucid illustrations of the above, given by Dr. Brunton in his address; suffice it to say here that he thus explains why it is that, while potassic chloride is a powerful muscular poison, the action of sodic and rubidic chlorides on the muscles is very slight, and that, while the chlorides circulate in the blood without producing any marked alteration beyond what is due to the substance with which the chlorine is combined, the bromides attack the brain and nerve-centres, and the iodides tend more especially to affect the muscles and the glands.

The number of prongs of the fork is another important factor, the three-pronged hook seeming to be the generally effective one. Nitrogen has three, and sometimes five, prongs or affinities: in its combinations with hydrogen, in the form of am-

monia, it affects nerve-centres, motor nerves, and muscles, tending first to stimulate and then to paralyze them. But, as we would naturally expect, the effect of the ammonia is modified by its combination with iodine, chlorine, and bromine; and we find that, while the ammoniac chloride generally attacks the spinal cord and causes irritation, ammoniac iodide paralyzes the motor nerves and muscles. On the other hand, when combined with oxygen in place of hydrogen, its action is exerted more especially upon the blood and blood-vessels—rapid dilatation of the latter, for example, being produced by amyl nitrite, slower and more prolonged dilatation by sodic nitrite or nitro-glycerine.

Of the high importance of the nature of the free affinity of the chemical compound upon its physiological action, the lecturer gave several instructive examples. The nature of the shank or central molecule, also, he showed to possess an important influence; and, as an illustration of the modifications in physiological action produced by the length and character of the central chain, as well as by the position of its hooks, he advanced the alcoholic series as an example. The links here consist of carbon atoms, each terminal link being furnished with a sharp hydroxyl point, and the others being provided with blunt hydrogen points. All the alcohols attack the nerve-centres, and paralyze the brain, the spinal cord, and the medullary centres of organic life; in large doses, producing death—the longer the chain, the more deadly being their properties.

By recognizing the fact that similar carbon compounds possess a similar anæsthetic action, Liebreich discovered chloral. To avoid the cardiac depressing action of chlorine, search was made for an hypnotic not containing this element, and paraldehyd was the result. And, led by the stimulant action of ammonia, Schmiedeberg has introduced the new hypnotic urethan, which acts, like chloral, as an hypnotic; being admissible, however, on account of its stimulant action on the heart, where chloral might prove dangerous.

The study of the molecular constitution of drugs has enabled us to obtain certain bodies of complicated structure which reduce animal temperature without affecting the nervous system and circulation. Kairin, thallin, and antipyrin are examples of

these; but, while the first two are more or less unsatisfactory, the last is probably the best antipyretic we possess. But it must be confessed that, while antipyrin is best in hectic fever, and salicylate of soda in rheumatic fever, a satisfactory antipyretic in typhoid fever is still a desideratum.

We cannot do better than conclude this article with the eloquent words with which the lecturer himself brought his own valuable address to a close, as we, like all our enlightened readers, feel bound so cordially to re-echo them in our breasts:

"Nothing is more painful to a medical man than to have to answer in the negative to an agonized appeal, 'Oh, doctor, can you do nothing?' of those who see passing away those who are dearer to them than their own life. It is because we know the value of human life and the extent of human suffering; because we are called upon to prolong the lives of those not only their friends, but their country and the world at large can ill spare; and to relieve pain, sometimes amounting to extreme torture, in the sufferers themselves, and felt hardly less keenly by their friends, that we consider that it is not only permissible, but is our imperative duty, to gain the knowledge we require to attain our object, even though we sacrifice the lives of animals and inflict upon them some pain, never wantonly, never carelessly, and almost always slight in comparison with what we often see our patients feel. Moreover, the lower animals suffer from disease as well as men, and we may hope that the advance of pharmacology will give us the means of relieving pain and prolonging life in them as well as in man."—*Brit. Med. Jour.*, Aug. 21, 1886.

Grigorovich (F. T.) on Cold Applications to the Præcordia in Fever.—In almost all pyrexial diseases one of the most important conditions with which we have to deal is the high temperature. Against this the physician exercises all his skill, knowing that the febrile process sets up pathological changes of great gravity in various organs. Of all these organs the most important to life is the heart, and in this a high temperature of the blood is apt to induce various changes, not only in the muscular fibres and the connective tissue situated between them, but also in the nervous ganglia and vessels. These changes manifest themselves by weakening the

heart's action. Death even may occur from the cardiac paralysis thus induced.

Being aware from medical literature of the comparatively large percentage of fever cases that terminate fatally from paralysis of the heart, and having seen cases of this kind in my own practice, the thought struck me that it might be possible by means of cold applied to the region of the heart to protect the cardiac muscle from the destructive effects of a high temperature.

In the literature which was accessible I was unable to find any information on the subject, with the exception of some hints given by Liebermeister and Rossbach. There are, it is true, researches on the possibility of cooling the tissues down to a certain point, but the results obtained by different observers do not agree. As a matter of fact, however, we have been for a long time in the habit of ordering external hot and cold applications empirically for the purpose of acting on deep-seated tissues. I consequently thought it best to undertake some experiments on the subject myself.

My chief object was to determine the permanent results of the application of cold, omitting for the time transient effects, such as those variations of the pulse which are due to the reflex from the skin at the instant of applying or taking away the cold. For this purpose I arranged the observations according to the following plan. The temperature was taken twice daily at exactly the same hours—namely, at 10 A.M. and 6 P.M., always under the axilla, and sometimes in the rectum, and between the great and second toes also. The object of the latter was to determine the indirect propulsive power of the heart. At the same hours I also took the pulse, noting the number of beats, the strength, and the general character; I was also careful so to arrange matters that there should be no conditions such as movements or mental excitement which could temporarily affect the heart's action. The cold was applied in the form of india-rubber bags filled with fragments of ice or with snow, and sometimes cold compresses were used instead.

I selected as far as possible patients in whom there were no complications, so that there might be no need to apply other remedies. All the observations were made on typhoid cases. As all patients are not affected to the same extent by cold, the applications were made for from six to twelve

hours out of the twenty-four. Precisely similar observations could not be carried out in all cases, as it had to be kept in mind that the subjects of the experiments were sick human beings.

In order to make my results more intelligible, I give a case from each of the three series of observations I made.

Sergeant-Major P., æt. thirty-six, well nourished, rather stout, not averse to liquor, admitted 24th November, 1884, in the continued fever of typhoid, on the eighth day of the disease; all signs of the latter distinct, enlargement of liver and spleen together, with rash, etc. From the ninth day the temperature fell gradually; from the third he was ordered an infusion of valerian, but as this was given daily, it could not produce any ambiguity in the results.

In the evening of the day when ice was used and had been on for six hours the pulse was slower than on the previous night by six beats. The next morning it was twenty beats quicker than the morning before the ice was applied, and was besides fuller and less compressible. At a later period of the observations this effect was not produced. Generally speaking the earlier in the course of the disease cold was applied the more energetic were its effects. The explanation in all probability is that when the application was delayed the heart-muscle had already undergone some amount of pyrexial change.

The next case I will mention is that of N., a recruit in the military hospital, at the sixth day of typhoid fever (January 19, 1885). He stood the disease well for some time, pulse not above 84; temperature 104° to 105° ; consciousness not impaired; no complications. The pulse only reached 100 on the 28th, but was hard. On the 30th râles were detected in the lungs. In this case cold produced no effect whatever, the heart becoming weaker day by day, apparently from changes which had already taken place in it. In spite of the most assiduous treatment the man died. At the autopsy the cardiac muscle was found affected with granular degeneration, and the lungs were congested.

Private L., æt. twenty-three, admitted 11th December, 1884, on the second day (as was afterwards determined) of a relapse of fever. The observations began on the 12th. Under the influence of a rapidly rising temperature the cardiac contractions at once reached a high rate, nevertheless

the application of cold produced a sufficiently marked effect.

In my later observations I turned my attention to the action of cold applications both on the heart and the respiration. Without giving figures I will confine myself to general remarks.

The respiration, at first somewhat quickened and rendered irregular by the reflex actions, subsequently becomes slower. At the end of the application of the ice and the next morning it is deeper and more regular, but somewhat slower than before the ice was applied.

The general conclusions as to the effect of applying cold to the region of the heart are as follows :

(1) The cold undoubtedly reaches the heart itself, and thus produces an effect upon its action.

(2) This effect is particularly noticeable when the cardiac beats are increased in frequency in consequence of a high temperature quickly attained, and where a certain degree of sensitiveness to a high temperature exists.

(3) The effect of cold is not marked at the end of a prolonged attack of fever, pathological changes having by that time probably become established in the cardiac muscle.

(4) The local application of cold is only capable of protecting the heart-muscle from the effects of high temperature when it is applied assiduously from the commencement of the disease.

(5) Under its influence the action of the heart improves, the number of beats diminishes, while their force and amplitude increase.

(6) Cold applied to the region of the heart diminishes the gravity of the *typhoid* condition and favorably influences the respiration.

(7) With regard to the effect of cold applied to the region of the heart on the course of the general temperature, I cannot at present express a decided opinion, as I did not investigate the question ; but in the results which I obtained indications may be found of the possibility of its causing some diminution of the temperature.

The observations were carried out in 1884 in the Rostoff local military hospital. —Translated for the August *Practitioner*, from the *Vratch*, by Theodore Maxwell, M.D., etc.

Reichard (V. M.) on Ergot in the Third Stage of Labor, and its Influence in Preventing Septicæmia.—

In the third stage of labor and in the post-placental period, ergot is an agent of the greatest utility. Those authors who are most chary about giving ergot advise its use when the head is about passing the vulva. This, however, may cause trouble. With an adherent placenta—and there are some men who find these cases are not extremely rare—the drug may cause such severe contraction as to interfere seriously with the operator, or, indeed, imprison the placenta within the uterine cavity. The safest rule by far is not to give ergot until the placenta is in the vagina or escaping from the mouth of the womb. Given at this time and in full and sustained doses, too much cannot be said in its favor. It lessens or prevents after-pains ; it hastens involution to a marked degree ; and it reduces to a minimum the dangers of septic absorption.

In this latter direction, I conceive, lies its greatest usefulness. The situations most favorable for the absorption of septic organisms are the denuded placental site and the occluding thrombi in the mouths of the uterine sinuses. By securing firm contraction or hypercontraction, both these dangers are met. The uterine cavity being emptied thoroughly and kept almost entirely in a state of tonic contraction, the discharges are carried out at once, the placental site is reduced to the smallest size, and the thrombi have the serum forced out, thus diminishing their value as propagating media for septic organisms.

The facts bear out these assertions. I have found that women who are thus treated with ergot do better than those who are not. The temperature scarcely rises above the normal, and they are in better condition at the end of the lying-in period.

In a recent case in which the placenta was remarkably adherent, all judicious efforts failed to remove the entire placenta. The injury to the uterine surface by prolonging further the efforts at removal was judged to be greater than the danger of leaving behind a piece of placenta. The woman was given a drachm of ergot every four hours. In twenty-four hours the lochia were very offensive, and on the third day a goodly-sized piece of placenta was discharged in a putrid state. At no time was the woman's condition at all serious.

I do not wish to be understood as saying that every effort should not be made to remove the entire placenta. But what I do say is that ergot will so seal the uterine absorbing surfaces that a putrid piece of placenta may be retained and no bad results follow. Whether it be only a coincidence or the effect of a cause, opinions may differ; but I am sure that since giving ergot to every woman immediately after the expulsion of the placenta, my cases do a great deal better than before I commenced to give it.

To sum up: ergot should not be given until the placenta is under entire control; then should be given several doses in quick succession, until the womb is well contracted and low down, and after this a drachm every four hours. The rapidly-repeated doses may cause vomiting, but I have never seen any bad results follow this. On the other hand, the womb seems to contract more forcibly.—*Phil. Med. Times*, Sept. 4, 1886.

Lamb (Theodore) on the Importance of the Early Recognition and Removal of Pleuritic Effusions.—I maintain that delays in removing pleuritic exudations are dangerous and unnecessary. I would call attention to some of the important risks. Fraentzel tells us: "In almost every case the effusion is at first fibrino-serous, but may become purulent as early as the first week." Clinical experience teaches that, in children especially, or by a second inflammation occurring in the already inflamed pleura, the change to pus is often rapid; this alone renders the prognosis much graver, and complicates the treatment very much indeed. What I would strongly emphasize is the early organization of the exudation coating the compressed lung and the costal pleura; the former is in danger of being permanently prevented from expanding by this casing becoming thicker and firmer, and by the bands which form between the opposed surfaces in their altered relations. Delafield³ states that we "have this new connective-tissue growth with blood-vessels by the fourth or fifth day of the inflammation." How many effusions have been reproduced or rendered hemorrhagic from the aspiratory negative force upon these vessels after

too complete or hasty aspiration, cannot be told. But it may be maintained that, clinically, we find that the lung does often expand after the fluid has remained some time. True; but with our present means we cannot predict that in any given case it will. The very cases in which delay is most practised are the most dangerous—those with marked constitutional disturbance of asthenic type, the exudation coating and fluid being denser, the one more capable of rapid organization, the other of slow and incomplete absorption. When the effusion is large, the pressure effects upon the absorbents, the cachectic condition under which the patient often labors, the effusion, rich in fibrin, becoming denser if absorption occurs, render the efforts of Nature slow and incomplete. Early aspiration brightens the prospect of lung-expansion, removes a treacherous inflammatory fluid, lessens the duration of the illness considerably, and, if properly done, is perfectly harmless. What do we know about it clinically? Castiaux² in thirty odd cases operated at the height of the inflammatory stage of the disease. He aspirated as soon as he detected the presence of fluid by exploratory punctures; he removed the fluid as completely as possible. The vesicular murmur showed that the lung had resumed its place from top to bottom. The effusion returned in only a few cases, and in these another removal was successful; he never had the effusion transformed into pus upon reaccumulation. In most of his cases the pulse and temperature fell within thirty-six hours after operating. His reasons for aspirating so early are, in part, that he thereby relieves the lung of compression, which impairs expansion; that he removes a liquid rich in fibrin and capable of increasing the thickness of the neo-membranes; that these membranes cannot become organized unless they are separated by fluid. The pleurisy is thus cut short and puncture (aspiration?) is considered the means of aborting the disease. Moutard-Martin⁴ operated in twelve cases during the fever before the tenth day. In eight of these cases there was no reproduction of fluid; in four a slight re-formation occurred. Wedal,⁵ in fourteen cases, operated between the second and fifth day during the fever. In the cases free from bronchial or pulmonary complications, some were cured by

¹ Von Ziemssen's "Encyc.," vol. iv., Pleuritis.

² Delafield's "Lectures upon Practice," No. 23, f. 133.

³ Donaldson, *loc. cit.*

⁴ *Ibid.*

⁵ *Ibid.*

the sixth day ; none were protracted beyond the twelfth. Most of his patients were vigorous young soldiers.

Now, in conclusion, what is the natural duration of acute primary pleurisy ?¹ The average duration, when the effusion has not reached any considerable height, is from two to four weeks—maximum, thirty-eight days ; minimum, twenty days. Woillez,¹ in a large number of observations, found that absorption began between the eleventh and twenty-fifth day, and lasted over fifteen days. In these uncomplicated primary cases, when shall we aspirate ? Should the abortive action of aspiration upon the disease, as maintained by Castiaux, be confirmed, *expire as soon as physical examination can diagnosticate the effusion*. Theoretical considerations are not sufficient to refute so important a claim ; we want practical tests. The duration of the fever is too indefinite and is dependent upon too many complicating factors to be a guide for its removal ; the evidence shows that aspiration can be done with impunity during its continuance. We also know the marked beneficial effect of early aspiration upon acute arthritic effusions ; it is true, we have here the important element of tension, but there can be no doubt that the early removal of the inflammatory fluid directly promotes the favorable termination.

But in every-day practice the great majority of cases are of the subacute or chronic variety : the effusions have already been present for some time. What should be the rule as to time for operation ? Waiting for the absence of the fever is still more pernicious in these. We cannot know, prior to aspiration, whether the new material around the lung and the other conditions present are capable of preventing expansion or not. It is our bounden duty to give the patient the benefit of the doubt. It is unsurgical to delay. Therefore, *when the cavity is not over half full, and the history as to the duration of the effusion is uncertain, wait two days ; if absorption does not then begin and continue uninterruptedly, aspirate. In all cases where the effusion fills three fifths of the cavity, aspirate without delay.*—*N. Y. Med. Jour.*, Sept. 4, 1886.

Scientific Advance in the Treatment of Tumors of the Brain.—Experimental research is constantly adding

to the resources of the curative art, and is aiding to achieve new triumphs over diseases hitherto beyond reach. In a paper read before the Royal Society on June 10th, Dr. C. E. Beevor and Professor Victor Horsley, F. R. S., gave the result of an experimental investigation of the functions of that area of the cortex of the brain, which Dr. Ferrier showed to be the centre for the movements of the upper limb. They found that, when the upper part of this area was stimulated, the movements which followed commenced in the shoulder ; and that, when the lowest part was stimulated, the movements commenced in the thumb ; and that, when the intermediate part was stimulated, the movements commenced in the wrist. These phenomena will be seen to be in agreement with the observations on the priority and the "march" of movements made by Dr. Hughlings Jackson in the particular type of epilepsy to which his name is often applied. It was not long before an occasion arose for applying the knowledge gained by these experiments to the cure of disease. A man was admitted into the National Epileptic Hospital (to which both Dr. Beevor and Mr. Horsley are attached), suffering from Jacksonian epilepsy, by which he had been incapacitated for two years. The fits began in the thumb, and Dr. Hughlings Jackson, under whose care the patient was, believed that the case was one to which the new knowledge with regard to the situation of the centre for the thumb might be applied, although the symptoms diagnostic of tumor were very vague. Owing to the great difference in complexity between the brain of the monkey and of man, there was, when the investigations of the functions of the cortex of the brain were first undertaken, considerable difficulty in applying the results obtained. At the present time, however, these difficulties have been almost completely overcome, and the relation of the cranium to the subjacent convolutions has been thoroughly worked out. Mr. Horsley therefore, although the patient presented no external signs of disease, and the skull had not been injured in any way, was yet able, by measurement, to apply his trephine over the cortical area which contained the thumb-centre. On removing the piece of bone cut out by the trephine on its first application, a tumor was detected immediately beneath. The

¹ *Ibid.*

hole made by the trephine was enlarged, and the tumor, together with the rest of the thumb-centre, was freely excised. As in the case to which reference was made a fortnight ago, Mr. Horsley treated the wound on precisely the same principles as those which he had found to be successful with monkeys after experimental operations, and the result has left nothing to be desired. The operation in this second case was performed on June 21st, and the wound healed by immediate union, so that on June 26th there was only a very small granulating surface, where drainage had been maintained. We find, on inquiry, that a week after the operation, the man was quite well, had had no fits, and was recovering power in the paralyzed limb. The other patient, upon whom Mr. Horsley operated three weeks ago, is also in excellent health, and has had no fits since the operation; it will be remembered that this man was suffering from traumatic epilepsy of a very severe type, and that the operation consisted in the excision of the scar in the brain. The second case, however, which we now record, is distinctly more remarkable, inasmuch as there was no wound or other external sign to guide the operator, who had to depend entirely on the knowledge of the anatomy and physiology of the brain gained by experiment, combined with the pathological generalization established by Dr. Hughlings Jackson. It is not too much to say that the successful termination of these two operations proves that a new departure in the treatment of certain diseases of the brain has in truth commenced. In operating on monkeys, it has been found that the wound in the brain and membranes and scalp made in the operation of trephining will, as a rule, heal in four or five days, and this case of Mr. Horsley's shows that the same holds good with man when the line of treatment is the same. It would be rash to speak of either of these two cases at present as cured; it is possible that the traumatic epilepsy may recur, and that the patient from whose brain a tumor has been removed may have another elsewhere within the cranium; in both cases, however, a hopeful attitude is fully justified; the probabilities are distinctly in favor of the anticipation that the cortical tumor was solitary, and will not recur. The point in treatment, and a very important point it is, which has been established is, that the operation of excising

a tumor from the cortex of the brain is unattended by danger to life when the wound is treated on the basis of the knowledge acquired by recent experimental research on the principles which have been found to be successful in monkeys.—*Brit. Med. Jour.*, July 3, 1886.

Felkin (R. W.) on the Determination of Sex, Derived from Observations Made on an African Tribe.—In "Uganda and the Egyptian Soudan," which the Rev. C. T. Wilson and I published in 1882, the following sentences will be found at page 150, vol. i.: "The female population of Uganda is largely in excess of the male, the proportion being about three and a half to one. This excessive preponderance of the females over the males is due to three causes:—

"I. Careful observation has established the fact that there are a good many more female births than male, and on taking the groups of children playing by the roadside, there will always be found to be more girls than boys.

"II. The Waganda are constantly at war with one or other of the nations round them, and their battles, being hand-to-hand encounters, are fearfully destructive. In one engagement which came under my immediate notice, fifty per cent. of the Waganda warriors were killed, and, as they gained the day, the loss of their opponents must have been even greater.

"III. The rule with the Waganda, when they have taken a town or district, is to put all the full-grown men to death, and to take the children and women prisoners; and as the Waganda are almost always at war, there is a constant influx of women, who are distributed among the chiefs and successful warriors."

In doing my part of the work on which these statements are made, I jotted down some figures, which I summarized in a paper which I read before the Royal Society of Edinburgh on May 3d, 1886, as follows.—"The result of inquiries made into the history of 300 pure Waganda women was that 291 had children, and of the first births, 144 were males, 147 were females. Of 500 imported women into whose history I inquired, 482 had children. Of the first births only 79 were males, and no less than 403 were females."

¹"Notes on the Waganda, a Central African Tribe."

These figures were rather startling to me, and set me wondering how they might be explained. After a good deal of thought, I have come to the conclusion that there is only one possible explanation, and I propose, as briefly as possible, to set that explanation before you to-night, and trust that it may be of some little interest to the Fellows of this Society.

In order to avoid any misunderstanding, I must state that the notes on which I base my theory were made partly in Rubaga, the capital of Uganda, in part on a journey I made from Rubaga towards the Nile to the east of that place, and, lastly, on my march from the capital to the northern frontier of Uganda, on my way home in 1879. I also made some other observations, which will serve as a control, in the Egyptian Soudan and on the east coast of Africa.

With the total population of Uganda, and with the excess of females over males, I have, on the present occasion, nothing to say, save to call your attention to the very marked difference found there when compared with the statistics of other countries, but this excess is, I think, fully explained in the quotation I made from "Uganda."

In a paper by Sir R.W. Rawson, page 153, "Bulletin l'Institut International de Statistique", tome i., 1ère et 2ème livraisons, année 1886, I find the following facts, viz.: that in England and Ireland there are 49 males to 51 females; in Scotland there are 48 males to 52 females; in the whole of Europe, including Russia, there are 97.4 males to 100 females; in the United States of America there are 51 males to 49 females,—as compared with 100 males to 350 females in Uganda.

In only four European States do we find an excess of males over females, viz.: in Italy there are 100.5 males to 100 females; in Servia, 103.6 males to 100 females; in Roumania, 105.9 males to 100 females, and in Greece, no less than 113.1 males to 100 females.

In looking over my notes made in Uganda, I asked myself the question: How is it that so many of the women imported into Uganda bear such an excess of female children in their first pregnancies? for I found that among the pure Waganda women the excess of first female births was comparatively small, viz.: 100 males to 102 females, as compared with 100 males to 510 females in first births from imported women; and that in subsequent pregnancies

of these imported women a more equal ratio prevails, viz.: about 100 males to 137 females, although this is a far higher ratio of female births than obtains in any European State.

The only theory which occurs to me, and which I confess seems to answer the question I have proposed, is that "*the temporarily superior parent produces the opposite sex.*"

I must now proceed to explain how I think that this theory fits in with my facts.

The Waganda are a very warlike race; they are nearly always at war with some of their neighbors; they are disliked and dreaded by all the surrounding tribes. It is their custom to kill all the grown-up males and very old women when they have conquered a village or district, and they lead away captive all the boys, young women, and girls. The boys are subsequently sold to the Arab slave-dealers; the girls and women are taken as wives. Now, with the exception of the great chiefs who command the army, no soldier is permitted to take a wife along with him to the war. The result is that, after the sack of a village, the utmost license obtains, and the nights are spent in excess of every kind.

Now, looking at the condition of the men and women thus suddenly brought together, we find that the men are flushed with victory, are exuberant, and after having lived for many days on dried bananas, they partake freely of cattle killed for the occasion, and the native wine they have stolen aids in exhilarating them; but you must note that this native wine is not strong, and the alcohol it contains is very pure. The women, on the other hand, are frightened and sorrowful at the loss of their freedom, homes, and friends (for an African woman loves her home and friends as much as other human beings do). They are compelled to perform exhausting dances for their captors' amusement, and are then ravished, subsequently being compelled to take long marches to which they are unaccustomed.

The man, I hold, in this case is *superior*—mentally he is elated, physically he is in good condition. The woman is *inferior*—mentally cast-down and physically exhausted. What follows? An enormous excess of female children. Therefore in this case, at least, the *temporarily superior parent produces the opposite sex.*

Unless I am much mistaken, my control

observations tend to uphold this theory, for I found that of the women captured by the slave-raiders in Central Africa, and brought down to the east coast, either near Zanzibar or through the Soudan to the Red Sea, those who had been impregnated on the way usually produced female children.

In this case also the same factors are at work—the women compelled to long and exhausting marches, to bear heavy chains, yokes, and loads, water and provisions being scarce; the men well fed and without care. In talking with Soudan slave-dealers, I was told, in answer to my inquiries, that, as a rule, only women who have borne children before are impregnated *en route*, as the young girls are generally “sewn up.” The slave-dealers said it did not matter about the older women, for they nearly always produce girls; so that, instead of having only one slave to sell, they have a woman and a female child.

I must next look at the condition of the women imported into Uganda after their arrival, and when they have been distributed to men as rewards for service in the field. Other factors now come into play, which may or may not uphold my theory. Dividing the Waganda men into three classes, there are, first, the chiefs, who have large harems; secondly, men who have several wives (six to twenty); and lastly those who have only one or two. This last class do all in their power to marry pure Waganda women. Why? Because the pure Waganda women elongate their *labia minora*, and the Waganda prefer such women, unless they can always have a fresh supply. They think that the result of the elongated labia is an increased desire on the part of the women, and hence an enhancement of their own pleasure. It is found as a consequence that in families of the poorer classes the sexes are as evenly balanced as in Europe.

Among the other classes the men do undoubtedly commit great excesses, but their wives, if they are imported women, have all the hard work to do, and are therefore *inferior*. Against this, however, must be noted the fact that from the time they become pregnant they live separate from their husbands till such time as they have weaned their children, which is at about two years of age.

The ratio of female births after the first among these imported women is more

nearly like that of pure Waganda women, but it is still far higher than in Europe, viz., about 100 males to 137 females. I can only throw out a hint as to a possible support of my theory in the examination of Europeans. I have not worked out this point fully, but I find that in the majority of cases in which a child is born in England under ten months after marriage, in the higher classes after a *honeymoon*, it is male; in the lower classes, and where there has been no *honeymoon*, it is female. Why this should be the case is too obvious to specify.

Before concluding this paper I should like to call your attention to two other points of interest which are brought out by my observations:—first, the small percentage of women who *appear* to be sterile in Uganda. In 300 pure Waganda women observed, only 9, or 3 per cent., had no children. In 500 imported women observed, only 18, or 3.6 per cent., were childless, as against about 15 per cent. of women who, I believe, are sterile in England. The second point is the number of children born of these women. Of the 291 pure Waganda women who had children, 74 had 1 child, 35 had 2, 140 had 3, 36 had 4, 2 had 5, 1 had 6, and 3 had 7. Of the 482 imported women who had children, 79 had 1 child, 260 had 2 children, 107 had 3, 37 had 4, 1 had 5, and 2 had 6.

Circumstances have prevented me from elaborating this paper as I should have wished. I give it for what it may be worth, for I am of opinion that any facts which an explorer can lay before the public should not be laid aside, but produced for the benefit of scientific men. I am well aware that a great mass of statistics must be brought together to prove any point. I have given what I possess, and hope others will do the same.—*Edinburgh Med. Jr.*, Sept., 1886.

THERAPEUTICS.

Schmeltz on Eulyptol.—The experimenter combines six parts of salicylic acid with one part each of carbolic acid and essence of eucalyptus. He believes a real combination takes place, as tests reveal no carbolic acid in the resulting substance, which he calls eulyptol. At first he employed it for surgical antisepsis, remarking as one of its advantages that it did not form in the wound insoluble albuminates,

as other antiseptics with a metallic base, which destroy their antiseptic action.

Internally, he found it will be borne in daily doses of from 2 to 2½ drachms a day. He considers it of great use in rheumatism and typhoid fever. It appears to be equally effective in catarrhal affections of the respiratory and urinary tracts. He finds it of great service to produce vesical antiseptics prior to operations on the bladder.—*Bul. gén. de Thérap.*, Aug. 30, 1886.

Hirchsfeld (G. L.) on the Hypodermic Employment of Iron.—From experiments performed in the therapeutical laboratory of the Cochin Hospital, the author concludes that the subcutaneous ferruginous injections are painful and inefficient; that the mode of medication is little used and difficult of application in practice; and that there exists actually no preparation which fulfils all the conditions to be desired for such injections.—*Bul. gén. de Thérap.*, Aug. 30, 1886.

De Fleury (A.) on the Tribromide of Allyl.—This agent, recently studied by Wurtz, is obtained by the action of the iodide of allyl upon one and a half times its weight of bromine. The author employs it in doses of three or four drops, incorporated with sulphuric ether hypodermically, or in capsules by the mouth. An hysterical contracture of the arm yielded to it in twenty minutes, while numerous hysterical attacks were promptly checked by its use. It is considered by Fleury an excellent remedy in spasms of all sorts—insomnia, angina pectoris, and asthma.—*Le Prog. Méd.*, Aug. 21, 1886.

Beyer (H. G.) on the Direct Action of Calcium, Sodium, Potassium, and Ammonium Salts on the Blood-vessels.—1. Calcium salts cause the vessels to contract by virtue of their stimulating influence on the vaso-motor ganglia.

2. Sodium and ammonium salts excite, first, the ganglia of the vaso-dilators; next, those of the vaso-motors; hence producing at first dilatation, and afterward contraction, of the vessels.

3. Potassium salts stimulate the ganglia of the vaso-dilators only, and consequently produce dilatation; if, however, as was shown in two observations, the dilatation which they produce is followed by contraction, this contraction is so extremely slight that it may practically be neglected; therefore, any stimulating influence on the vaso-motor ganglia which they might pos-

sess is insignificant when compared with that which they exert over the vaso-dilators.—*Med. News*, Sept. 4, 1886.

Chevy on Hydrofluoric Acid in Therapeutics.—In a remarkable thesis on this new subject, the author concludes that the vapors of hydrofluoric acid can be inhaled without inconvenience when diluted with air in the proportion of 1-1,500. It is an antiseptic, and a powerful antiferment, stopping the fermentation of milk, urine, and bouillon, and preserving meat, in the proportion of 1-3000. Its employment in pulmonary tuberculosis, diphtheria, and as a dressing for bad wounds, has yielded results worthy of further study. Great care should be exercised in its use in asthmatic, hemorrhagic, or emphysematous subjects.—*Rev. de Thé.*, July 1, 1886.

Seiler on Pulmonary Tuberculosis Treated by Inhalations of Hydrofluoric Acid.—The writer submits his patients to daily inhalations of an hour's duration, and twenty or thirty in number. He saturates the air by a spray apparatus, which contains a mixture of the acid and water in the proportion of 1-3. This air is forced into the inhaling-room in the proportion of about ten litres to one cubic metre.

The inhalations are absolutely innocuous, and, he affirms, of notable benefit.—*Le Prog. Méd.*, Aug. 28, 1886.

Jones (J. H.) on the Inhalation of Ether in Non-Expansion of Lung, Occurring After Pleurisy, in Apneumosis of Children, and Asphyxia Neonatorum.—After absorption or artificial evacuation, we frequently find that a long-continued effusion in the pleural sac is followed by destructive changes in the corresponding lung. Many remedies have been tried with the object of expanding the air vesicles and preventing the occurrence of carnification, but with unfavorable results. I suppose the most effectual treatment has been that of breathing compressed or rarefied air. But by far the best method, in my experience, is inhalation of ether. I remember when I first had occasion to use it the area of resonance was increased over two inches, and was maintained after the effect of the anæsthetic had vanished. I have used it since on three other patients with very flattering results, and can confidently recommend it to the profession as the best means of dilating the air-vesicles and restoring the lung to its natural state.

If the adhesions have not been of too long standing, and are not very dense in structure, they will certainly yield, and, once overcome, will be permanently obliterated. A careful mapping out of the area of dullness should be made prior to administering the anæsthetic, and, if it is found that it is not appreciably diminished after two or three administrations, it will be an indication that re-expansion is hopeless. Often, however, one administration will suffice. It is desirable to push the anæsthetic to complete narcosis. It should be discontinued after the stage of excitement has been reached. I was induced to resort to ether in preference to chloroform, not only because it was safer, but for the reason that I regarded the former a direct *irritant to the respiratory centre*, as witness the convulsive efforts at respiration while a person is under its effects.

Its inhalation is sometimes serviceable in the capillary bronchitis of children, when we suspect that one or more of the smaller bronchi have become impervious. It is true that counter-irritation to the affected area and emetics are frequently successful in overcoming the obstruction; but, when asphyxia seems to be progressive and is accompanied by asthenia, emetics are too depressing, and their action cannot be relied upon. I have found the employment of ether quite safe in these cases. Under its use the heart's contractions are strengthened, and a violent anti-respiratory (forced expiratory) action is set up, which frequently is sufficiently powerful to dislodge the offending secretion.

I can also recommend the use of ether in the asphyxia of newly-born infants. It will sometimes succeed when artificial respiration fails. A few drops may be placed upon a piece of absorbent cotton and held to the nostrils. A better method is, after the nares have been cleansed of mucus, etc., to insinuate into either nostril a camel's-hair brush previously dipped in ether, and, by titillating its mucous membrane, we, in addition, summon to our assistance the benefit of reflex action.—*N. Y. Med. Jour.*, Aug. 21, 1886.

Jones (J. H.) on Bichloride of Mercury and Tincture of Belladonna in Membranous Croup.—I have for some years been in the habit of treating this disease with a combination of corrosive sublimate and belladonna. These drugs are recommended for this complaint in almost

every work on therapeutics; but I am not aware that they have ever been given conjointly. I have found that small doses of the bichloride (one fiftieth of a grain), administered in conjunction with tincture of belladonna (two to five minims), every half hour, for a child two years old, is a very successful method of dealing with this dangerous disease of childhood. The secret of its success is in its persistent administration, even when the symptoms are apparently most unfavorable. I have several times witnessed a happy termination to the disease when other practitioners with whom I was associated entertained scarcely a hope of recovery. It is advisable to commence the treatment by administering an emetic, so as to dislodge the already formed membrane. Probably much of the benefit derived from this mixed treatment is due to belladonna, and it is astonishing what large doses of this drug children can tolerate. During the progress of the disease the strength must be maintained by a liberally nutritious diet and stimulants, for I must say that, when recovery takes place, the patient is left very anæmic and weak. This is not very apparent while the medicine is being given, as every evidence of it is partially masked by the physiological effects of the belladonna.—*N. Y. Med. Jour.*, Aug. 21, 1886.

Parker (W. T.) on Quinine in the Treatment of Whooping-Cough.—

Dr. Dawson introduced this treatment from Germany, and first used it in the wards of the Hospital for Children in New York City, then under his care. He met with great success. In 1880 I employed this treatment in many cases in private practice. I was so much pleased with its workings, and the almost immediate relief afforded, that I have used it and recommended it ever since. The treatment which I follow is to expose the patient as much as possible to the open air, and, if practicable, at our mountain or ocean resorts, paying particular attention to food and clothing and general hygienic conditions. Every two hours I give a teaspoonful of a solution of sulphate of quinine, four, six, eight, or even ten grains to the ounce. This remedy does not disappoint in many cases in controlling the disease, and, if properly used, and with perseverance, in actually curing it, or at least shortening its course very decidedly. It seems to act as a sedative in the inflamed mucous membrane, and has

also the valuable properties of a tonic. Unlike many of the other remedies which are so unsuccessfully exhibited in this disease, it has absolutely no injurious effects. The little patients begin to improve very shortly after the first two or three doses. I am fully convinced that a trial should always be made of the solution of sulphate of quinine in the strength and in the doses indicated, according to the age of the patient and the severity of the case; and after a few faithful experiments in this direction I believe that no one will be able to say with truth that "the course of the disease could not be controlled by treatment."

—*Phil. Med. Times*, June 26, 1886.

Lyon (E. M.) on Quinine in the Treatment of Whooping-Cough.—I have used quinine extensively and successfully in my own practice, as follows: *R.* Quiniæ bisulph., 3 j; elix. simplic. rub., U. S. P., $\frac{3}{4}$ jss. *M.* Sig.—Teaspoonful to a child aged five years and upward. I give it every three or four hours until cinchonism ensues, and keep the patient continuously under its influence, my guide for its administration being the frequency and severity of the paroxysms. By this means I feel assured that I have succeeded in favorably influencing the course of the disease, and shortening its duration in the majority of cases. I use the bisulphate because it seems to me it is better borne by the stomach, and in solution for the more accurate division of the doses. My experience has been that children do not object very strongly to the taste after taking it a few days. After each dose I give a lump of sugar saturated with lemon-juice, and always upon an empty stomach. I kept three of my own children cinchonized almost continually for nearly two weeks without any bad effects.—*N. Y. Med. Record*, Aug. 28, 1886.

Michael on the Treatment of Whooping-Cough.—Powdered benzoin is not only the most effectual powder, but also the most agreeable to the patient. A coughing fit is generally caused only the first few times that the powder is blown in, perhaps as much by nervousness as any thing else. This can be avoided by blowing in during an expiration of the patient. In the case of very young children, or in very violent attacks, quinine may be preferable as being milder. Dr. Michael's cases were nearly all among the lowest classes of the population, and not well cared for at

home; hence the results of the treatment would be more favorable in hospitals and among the better class of private houses. In the former class, he encourages the patients to go out rather than remain in their damp rooms. Otherwise, he advocates change of rooms with an equable temperature. The insufflation is made every twenty-four hours, with a simple glass tube or a "powder-blower," which any one can use. To repeat it during the day has proved to be useless. In obstinate cases, some other method may be combined with insufflation—*e. g.*, Letzerich's quinine treatment, or the internal application of bromide of potassium.—From *Deutsch. med. Woch.*, in *Lond. Med. Record*, May 15, 1886.

Greene (W. T.) on the Treatment of Whooping-Cough by Carburetted Hydrogen.—Soon after settling in London, I remarked that the poorer classes of the metropolis were much in the habit of taking their children, when afflicted with the whooping-cough, to one or other of the gas factories, where, it was popularly believed, they derived no small benefit from inhaling the pungent fumes that necessarily abound in such a situation; but as they also frequently contracted bronchitis, and sometimes pneumonia from exposure to cold after leaving the overheated precincts of the gas works, this mode of treatment could scarcely be looked upon as altogether satisfactory.

One of my children sickened with the disease, which gave every indication of gravity; but after a day or two the severity of the initial symptoms gradually subsided, and all trace of the whooping-cough disappeared in about ten days from the commencement of the attack.

What was the cause of this unexpected and gratifying result? Simply this; just at the head of the child's cot there was a gas pipe, from which a slight escape of gas had been noticed for some time, but the workman, who had been sent for to repair the breach, did not come, and so the gas continued in very small quantities to escape, and the little boy got rid of his whooping-cough in a marvellously short time.

Here was strong confirmation of the justness of the popular belief in the efficacy of the inhalation of carburetted hydrogen, and I lost no time in repeating the experiment when an opportunity presented itself, and with the like gratifying result.

This, then, is the remedy for whooping-cough. Let the patient inhale frequently, five or six times a day at least, the ordinary illuminating gas, which mainly consists of carburetted hydrogen, though probably the vapors of the volatile liquid carbides of hydrogen that are associated with it, are not without their share in producing the result. Let this be done regularly, and, in from three to ten days, the attack of whooping-cough will be a thing of the past, and that without the painful necessity of sickening the poor child with a variety of nauseous compounds.

The mode of administration is quite simple; procure a piece of ordinary gas-tubing, of sufficient length to reach from one of the gas-burners to the floor, on which it might advantageously trail for a foot or two, turn on the gas sufficiently to make its odor perceptible, and make the little patient stand over and inhale it for a few minutes, as often as convenient; it will not make him cough, but, on the contrary, afford him a grateful sense of relief, and after a few inhalations the more formidable symptoms of the disease will disappear, and the complaint will altogether cease to manifest itself after a few days.

I have proved the efficacy of this simple plan of treatment in so many cases of whooping-cough, that I have no hesitation in recommending it to the consideration of my professional brethren, to many of whom, doubtless, it will present nothing new, or at least only a confirmation of their own observations, but to others, I hope, it will bring a boon as great as I have now for several years found it to be in my own practice.—*Med. Press and Circ.*, April 7, 1886.

Jones (J. H.) on Belladonna in Sterility of Females.—There are few drugs which exhibit so pronounced a predilection to act upon certain structures of the body as belladonna. Among its favorite tissues, those of the female sexual organs may be mentioned. Its employment is followed by more or less benefit in every disease to which these parts are liable. I suppose it has fallen to the lot of almost every practitioner to be consulted by married women who never were pregnant, as to the cause of their barrenness. Apparently, they enjoy the best of health, and have never suffered from any irregularity of the sexual apparatus. To such I have on several occasions prescribed belladonna in-

ternally, and have found that, after taking the medicine for some weeks, they became pregnant. I have seen this happen so often that I am constrained to regard the occurrence as something more than accidental. I shall not venture to theorize upon its action, but will merely mention that I have observed that the external genitalia become more relaxed, and the os and cervix uteri somewhat softened and pliable, during the treatment.—*N. Y. Med. Jour.*, Aug. 21st, 1886.

Copeland (W. P.) on an Anodyne for Use in Vesical Irritation.—In almost every community there are old men who suffer from enlarged prostates, accompanied with chronic inflammation of the neck of the bladder, rendering them miserable sufferers and a care and anxiety to their friends and families. Having had the professional care of several of this class of cases, and dreading the tendency they so frequently incur by the administration of opium for the relief of pain, I resorted to various washes for injecting the bladder, resulting in my adopting a solution of benzoate of soda, ten grains to one ounce of water, with twenty to thirty drops of the green tincture of gelsemium; this is warmed and injected by the patient through a soft rubber catheter, whenever the pain is severe, and the catheter withdrawn, leaving the medicine to be voided in twenty or thirty minutes; or where they are not able to pass any thing from the bladder, the catheter is re-introduced and the medicine allowed to escape. My experience with this treatment has been so satisfactory that I cannot refrain from giving it publicity to the profession.—*N. Y. Med. Record*, July 17, 1886.

Koriander on Naphthalin in Helminthiasis.—In the *Vratch*, No. 26, 1886, Dr. Koriander, of Samarkand, writes that naphthalin is a cheap and excellent remedy for tape-worms and ascarides. He gives the drug in powder with sugar, in two-grain or three-grain doses twice daily to a child, and from one to four scruples daily to an adult.—*Lond. Med. Record*, Aug. 15, 1886.

Dr. Pezzer on Naphthalin in Certain Urinary Affections.—The class of cases in which Dr. Pezzer uses naphthalin, are those in which there is fetid urine and difficult micturition. The results are encouraging. He gives it in daily doses of gr. xxv in pyelonephritis, cystitis, prostatitis with stagnation of urine, and old stric-

tures with multiple fistulas. He has noticed no digestive disturbances. It acts as a sedative to an irritable bladder.

Bouchard asserts that in daily doses of gr. lxxv, it prevents a rapid decomposition of the urine, in which it appears not under its own form, but as a naphthyl-sulphite of soda.—*Le. Prog. Méd.* Aug. 28, 1886.

Clevenger (S. V.): A Contribution to Neurological Therapeutics.—In my hospital and private practice I have had good opportunity to test the efficacy of special drugs, and since introducing the full use of *secale cornutum*, the internes find diminished use for opium.

More than twenty epileptics at my clinics were benefited by ergot, in combination with natrium bromide. Half of these cases I have every reason to regard as permanently made better, if not cured. Every one was treated as individual peculiarities seemed to require, and routine dosing was found to be hurtful. In one case of cerebral gumma, and another with a cardiac lesion, ergots intensified the fits, whereupon it was displaced by specific treatment and digitalis, with good results.

Lessening of the vertigo and psychical aberrations followed its administration in one case of cerebellar tumor, proven to have been such *post mortem*.

Three cases of exophthalmic goitre began to amend with the first drachm of the fluid extract. One female, æt. forty, had been treated for rheumatism and anæmia, the pains and facial pallor misleading the prescribers. The color returned to the face, and the intrascapular suffering ceased as the tumor of the neck disappeared under the constringing influence of the medicine.

Even in the active hyperæmias, when *secale* had closed the avenues toward engorging the brain, I saw that pressure was simply transferred from the arterial distribution to the ventricles, and that derivation to the bowels must be conjoined with attempts to meet requirements, by consideration of the primary source of the ailment, affording one of the innumerable evidences that the physician must *think*, and must have a physiological basis of thought, to be able to cope with disease in its multiformity.

In a well-marked case of spinal meningitis treated with large *secale* doses, the immediate relief afforded and the rapid institution of convalescence, led both the interne and myself to review the history, progress, and recovery of the case, as there

was no literature to justify such treatment alone. The remissions turned out to be so protracted, and the recovery so decided, as to leave us no doubt of the value of the medicine in its practical workings.

It is seldom of use in coarse brain disease, or in cerebral syphilis.

Neither in chronic or acute chorea has it proven useful in my experience, and once I noticed a tendency to alopecia in a patient using it, which ceased on discontinuance of the drug.

The case of recurrent cerebral congestion, referred to in this paper, wherein ergot had been tried, was complicated with an excessively irritable stomach, causing the frequent rejection of the fluid extract, and, as before stated, the solid extracts did no good. In conversing with my friend, Dr. Thilo Brauns, I asked him if he regarded the cotton-root bark he used in his gynecological practice as equalling *secale* as a constringent of the uterus. He replied that he had come to depend upon it as better than the ergot. As the physiological action of the two drugs must be the same, and the *gossypium* does not nauseate, I concluded to try it in all cases where previously I had used the ergot, with the following result: *Gossypii radidis cortex* acts more energetically than ergot in reducing the calibre of arterioles. Its action is swifter—the effects being manifest in two to three minutes. The pulse-rate dropped in that time from 112 to 78, in a case of cerebral hyperæmia in which it was used by me.

Up to the present writing I have prescribed *gossypium* twenty-two times in

3 cases active hyperæmia,
9 cases epilepsy,
1 case post-hemiplegic insanity,
2 cases aneurism aorta,
1 case angio-paralytic hemicrania,
1 case spinal congestion,
2 cases delirium tremens,
2 cases cephalalgia from debauch,
1 case traumatic cerebral meningitis,
with favorable results.

I find it best to use less of the *gossypium* than of the ergot, and, approximately, might estimate the energy of the two drugs as represented by doses of $\frac{3}{4}$ or $\frac{1}{2}$ the former to one of the latter.

I noticed also that the contraction induced by the *gossypium* was more enduring, and, in the active recurrent cerebral hyperæmia case alluded to, the effects of a few

doses prevented attacks for two weeks, which, theretofore, had occurred nearly every other day. But I was compelled to desist from its further use, when—in lieu of the frenzied headaches—cardiac and gastric spasms succeeded, due, in my opinion, to either effusion or thrombi (compression symptoms) in the pneumogastric centres. These dangerous paroxysms disappeared after a hemorrhoidal hemorrhage, to be followed in a few days by a return of the headaches, while the gossypium and all other remedies were refused, as even food could not be tolerated. Atropine and morphine hypodermatics were then resorted to instead, affording some relief, but this was a final resource, for organic disease of the brain has advanced to such a stage as to render all but palliative methods useless.—*Journal of Nervous and Mental Disease*, March, 1886.

Mitchell (J.) on the Physiological Action of Ustilago Maidis on the Nervous System.—Nervous system: Cerebrum consciousness in frogs lost.

Spinal cord: The sensory portion of the spinal cord is first paralyzed, the reflex paralysis being due to this cause. The motor portion of the cord, as well as the motor nerves, are also depressed, and ultimately paralyzed. That it is also probable that the sensory nerves share in the general paralysis.—*Therap. Gazette*, April 15, 1886.

Gibney (V. P.) on the Limitation of Therapeutics in Infantile Paralysis.—I am loath to attribute good results to the treatment employed. Small areas of cord lesion give very little muscular paralysis. It is a waste of time to employ galvanism, or faradism, or static electricity to muscles palsied from this cause. Much can sometimes be done for healthy muscles by increasing their size, imparting to them, as it were, an exaggerated function. They render much assistance where certain groups of muscles fail to respond. Let one test the case electrically, or, if he feels incompetent to conduct a satisfactory electrical examination, let him get the services of some one who can give the information desired. One can with propriety keep a recent case under observation a few months, and, if no response is given to treatment, the prognosis can be given.

I do not mean to assert that all patients fail to recover power. I merely forewarn the practitioner how little reliance he can place on electricity and massage as restora-

tives in muscles whose nerve is practically dead.

To prevent the subluxations and deformities which arise from muscular and tendinous shortening, avoid any undue stretching of the fibrous structures of the joints. Do not permit long-maintained positions of the parts, by which muscles whose function has not been destroyed can become shortened. Apply corrective apparatus when it is necessary to oppose contraction, however slight.

Deformities resulting from muscular and tendinous shortening by traction, tenotomy, or myotomy.

Elongated tendons and muscles are remedied by retaining the parts in such a state of relaxation that inherent shortening may take place, or tendons may be shortened by removal of a portion, and by uniting the proximal and distal extremities.

Even these operations were not attended with success until Mr. Alfred Willett, of St. Bartholomew's Hospital, resorted to a suturing of the tendon ends with the surrounding tissues.

The operation, I think, is a good one, but it is doubtful whether it will secure a more serviceable foot than an excision of the ankle.

By synostosis as a substitute for apparatus, I mean excision of the knee- and ankle-joints, thus obtaining bony ankylosis between the femur and tibia, and tibia, fibula, and astragalus. The rigid lower limbs, in walking, are swung forward by the adductor and great flexor muscles of the hip-joint, which generally retain or recover their power.

It will be seen that surgery, after all, offers the only relief in infantile paralysis.—*N. Y. Med. Jour.*, April 3, 1886.

Von Ruck (K.) on Arsenic in the Treatment of Arthritis Deformans.

—A case of arthritis deformans was put upon arsenic, and although not entirely cured, the patient has been greatly benefited in the course of a year. She is able to use her hands almost as well as she ever could, and her general health has been much improved, owing to the simultaneous relief of her dyspepsia. The articular enlargements are certainly diminished by one-half, and the contractures are yielding to a steady course of massage and manipulation. Fowler's solution in four-drop doses after each meal were employed.—*Therap. Gaz.*, April 3, 1886.

Brower (D. R.) on the Effects of Cocaine on the Central Nervous System.—1. Cocaine in small or moderate doses is a cerebral stimulant, but produces derangement of the digestive and assimilative functions, and diminishes the elimination of waste.

2. The use of cocaine in the alcoholic and opium inebriates is not satisfactory; while it is a more or less perfect substitute, yet its use is attended with greater danger than alcohol or opium.

3. The use of cocaine in mental depression, if we carefully guard against the depressing effects of the drug upon digestion and assimilation, will often give better results than any drug hitherto used.

4. The use of cocaine in neurasthenia is a valuable addition to the treatment.

5. The drug, if administered in large doses persistently, causes a very marked deterioration of the central nervous system, producing a profound cerebral neurasthenia, and may produce such a mal-nutrition of the cerebrum as to develop insanity.

6. Cocaine, occasionally, in doses heretofore regarded as small, produces alarming depression of the central nervous system.—*Four. Am. Med. Ass'n*, Jan. 16, 1886.

Willard (Chas. E.) on Vertigo, and its Treatment by Blisters.—Having had under my professional care during the past winter an unusually large number of cases of stomachal vertigo, I feel constrained to place upon record my mode of treatment. After trying the various remedies recommended in the text-books, and not deriving the results I desired, I applied *blisters* to the *neck*, and in some cases, when the pain in the back was severe, all the way down the spine. The result of the blistering was very satisfactory, improvement beginning almost immediately, and my patients are to-day attending to their ordinary duties. Of course I did not neglect, but continued, general treatment. I think that the use of blisters in these cases cannot be too highly recommended, even though we cannot explain their *modus operandi*. In the treatment of these cases I used a *blister* which does not contain cantharides, and therefore is free from the exceedingly unpleasant complication of strangury. These blisters, or "issue plasters," as they are called, have proved very satisfactory in my hands, not once producing an unpleasant symptom—they blister quickly, without pain

of any consequence, and by returning them to the blistered surface an issue can be kept up for any desirable length of time—and, as I remarked above, without the slightest fear of strangury occurring as a complication. I greatly fear that with the general practitioner the beneficial effects of judicious blistering, in these and similar cases, is often lost sight of in dread of the unpleasant symptoms produced by cantharides.—*N. Y. Med. Record*, June 19, 1886.

Grosvenor (J. B.) on Veratrum Viride.—The two cases in which I have found veratrum viride specially beneficial, are acute pneumonia and acute metritis.

Being called to a case of pneumonia in its initial stage you find a flushed face, a high temperature, a full, rapid, bounding pulse. Blood is being forced into the lungs in large quantities by the increased force and velocity of the circulation. The more blood carried to the lungs the more intense becomes the inflammation, the greater is the quantity of exudation poured out, and the longer time must it require for the exudation to undergo absorption. What, then, is clearly the indication before you? A sure and safe reduction of the circulation. Is there any remedy which will so fully meet all the indications of your patient's condition, with a proper regard for his future welfare in the second and third stages of the disease, as veratrum viride? One drop of Norwood's tincture, given every hour for six or eight or ten hours, will work a wonderful transformation in his feelings, appearance, and condition. As soon as exudation has taken place the utility of veratrum ceases, and it should be stopped at once. It has no power to increase the absorptive processes of the system, and hence cannot remove the materials of exudation.

Acute metritis, from whatever source it may arrive, may very properly stir the practitioner into anxiety and arouse him to a most determined resistance against it. Nature calls for help, and help must come at once or the victim will pass over the boundary beyond which all therapeutical measures are futile. It is not a time to stand and wait. The theory and plan of treatment by expectancy has no proper place here. The hot skin, the dry tongue, the pain, the tenderness on pressure, the strong, rapid pulse call for a quick lowering of temperature, and reduction of the heart-beat. Veratrum viride being in your hands

I believe you have a safer and surer remedy to accomplish the desired result than any other known to the profession. Use it steadily, carefully, watchfully, and often the most gratifying conclusion will follow your promptness and decision.—*Med. Press of West. N. Y.*, June, 1886.

Drysdale (A.) on Bichromate of Potash.—Bichromate of potash has a specific action upon, or elective affinity for, certain organs, and tissues analogous to, and even more marked than that of arsenic or mercury, and hence it may be hoped that it may prove as useful a therapeutic agent as those powerful substances. This action is most marked on the mucous membranes of the respiratory passages, nose, eyes, and mouth, and on that of the stomach and intestines, on the skin, liver, and kidneys, and lastly, the fibrous tissues, periosteum, and bones. No specific relation can be traced with the serous membranes, with the genital organs, or cerebro-spinal system. The effects upon the nervous system, greatly dwelt upon by Priestley, may be placed upon one side, as they are manifestly secondary to the violent effects produced by the direct contact of large quantities of the substance with the mucous membrane of the stomach, etc. When the drug is given in smaller quantities, and its action distributed over a larger period, no symptoms referable to the nervous system are observed. As it is evident that, in order to benefit a malady (unless the treatment is to be purely empirical), the remedy selected must at least be known to affect the seat of the affection, the sphere of usefulness of bichromate of potash must be sought for among disorders of the above-enumerated organs, viz.: of the mucous membranes of the respiratory passages and alimentary canal, the liver, kidneys, skin, and bones. Though it is not a remedy as yet in general use, there is a considerable amount of information forthcoming with regard to its beneficial action in scrofulous eczema, equino-farcy, digestive disorders, marasmus, and syphilis. Cases are met with chiefly in persons about the age of puberty, or somewhat younger, in which there is a troublesome mucopurulent discharge, great tenderness of the septum nasi, with occasional pain, and a swollen condition of the nose; such cases will yield readily to a few weeks' course of bichromate of potash. Obstinate persistence of polypi, after recourse to the

usual remedies, and after repeated removal by the forceps, yield to the topical action of a snuff composed of nine parts of sugar and milk to one part of powdered bichromate of potash. The polypus begins to atrophy at once, and after a course of a couple of months, entirely disappears, never to return.

Mr. James Moore reports comparatively good results from the administration of $\frac{1}{2}$ gr. in horses affected with glanders; he also rubs a lotion over the inflamed glands, and causes the horses to inhale a steam containing 5 gr. to a quart of water.

About the month of June, some persons suffer greatly from coryza, dull headache, creeping and tickling in eye and nose, with watering, sneezing, and tightness of chest. Such a condition, known as hay asthma, is much benefited by bichromate of potash.

Ulcers of the tongue, either syphilitic or non-syphilitic, have disappeared under its administration. Those kinds of acute sore-throat where there is not much redness or swelling, but which tend towards the speedy formation of small ulcers on the tonsils and velum, will be found to be greatly benefited by the administration of the drug. A gargle of gr. ii. to $\frac{3}{4}$ of water, and $\frac{3}{4}$ ss. of glycerine may be used with benefit in all cases of acute ulcerated sore-throat. In some persons of fleshy and leucoplegmatic habit, usually children or old people, there is a tendency to indolent enlargement of the tonsils and deafness. Such cases are well treated with bichromate of potash. This drug has been found beneficial in a variety of forms of dyspepsia and functional derangement of the stomach, as well as in chronic inflammation and duodenitis, atonic dyspepsia with flabby tongue, loss of appetite, and uneasiness of stomach. Vulpian says: "Those cases of dyspepsia in which bichromate has appeared to produce very good effects are those in which we might ask ourselves the question whether we had not to deal with neoplastic developments of the mucous membrane of the stomach." He puts such patients on a milk diet, and gives them the pills of the bichromate, commencing with gr. $\frac{1}{4}$, three times daily, and gradually increasing to nine pills.

Some varieties of acute and chronic inflammation of the duodenum, and many of the cases of spasmodic pain simulating the passage of gall-stones, yield readily to this drug. Chronic catarrh of the mucous

membranes of the bowels, with flatulent colic and constipation, and even those cases (dysenteric) in which there is chronic beefy red tongue, frequent loose stools, with circumscribed tenderness of the abdomen, have been beneficially treated with bichromate of potash. Very great benefit has been found from its administration in those cases of dysentery after severe burns, probably to be referred, as was pointed out by Curling and Long, to ulceration of the duodenum. Of 137 cases of syphilis treated with chrome water, 67 abated with no symptoms subsequent to primary sore; in 56, secondary and tertiary symptoms were cured without relapse, while in 17 cases there was no relapse. These results are more favorable than those obtained under mercury.

It is to be hoped that the bichromate of potash in syphilis will yield sufficient results to enable us to differentiate those cases which would be best treated by it from those best treated by mercury.—*The Med. Press and Circ.*, April 28, 1886.

TOXICOLOGY.

Kiener and Engel on Hematic Changes Produced by the Sulphide of Carbon.—The authors were not able to discover the asserted breaking up of the red globule in the living blood, but noticed that the globules were larger, paler, and more fluid than normal. The dissolution was more marked where the globules were aggregated together, or compressed. These lesions were not observed in chronic poisoning. The urine never contained hemoglobin, but in one case, there was a transitory hematuria. In cases of poisoning by inhalation, there are found a bloody ascites and hemorrhagic infarctions in the lungs.—*Gaz. heb. de Méd. et de Chir.*, Aug. 13, 1886.

Webber (S. G.)—Overdose of Hydrobromate of Hyoscin.—Immediately after breakfast Miss — took a teaspoonful of a solution of hydrobromate of hyoscin by mistake for a diuretic. The formula of the preparation was

R Hydrobromate hyoscin . . .	gr. ss.
Alcohol	3 iss.
Aq.	q. s. ut. ft. 3 x.

thus each ten minims contained a hundred-and-twentieth of a grain. The teaspoon, being measured, was found to contain one

hundred minims, so that the amount taken was about one twelfth of a grain.

Finding she had taken the wrong medicine, she immediately took a teaspoonful from the right bottle, one containing acetate of potassa. About an hour later it was noticed that her face was flushed, and on being questioned she told what she had done. I was sent for. I found her with face much flushed, pulse 120, and very weak; she complained of feeling strange in her head and dizzy, said her hands and feet felt cold, but her hands seemed warm; later she spoke of numbness in her hands and feet, and the sound of our voices seemed distant and muffled.

She was given two drachms of wine of ipecac., and within ten minutes mustard and water. Emesis was assisted by draughts of warm water. Whether owing to the food in the stomach or the action of the drug, it was difficult to empty the stomach, and a large quantity of mustard and water was given before all the breakfast was ejected.

About half an hour after the treatment was commenced, her hands and feet felt much more numb; she was very sleepy; it was difficult to keep her awake. The pulse was still rapid and weak. A fifteenth of a grain of morphia was given subcutaneously, and the pulse soon was reduced to 108. In about twenty minutes another fifteenth brought the pulse to 84. The sleepiness continued all day, and there was a distaste for food. The night was quiet, she slept soundly, and the next day simply had a headache.—*Bost. Med. and Surg. Jour.*, Sept. 2, 1886.

Bidwell (W. D.) on Toxic Effect from Permanganate of Potassium.—

In the case of a girl of nineteen with advanced phthisis and amenorrhœa of ten months' standing, I administered the permanganate in two-grain capsules t. i. d. for two days, which was followed on the evening of the second day by a moderate flow lasting for two or three days. After this the girl's general health improved slightly, and the flow appeared the following month just as previous to the lung trouble. Subsequently, however, she failed rapidly and died in about two months. My partner, Dr. Brock, on hearing of the success in this case, and also that a young married lady had taken five and six grains at a dose, and had had one or two miscarriages while following this treatment under another physician, prescribed two-grain capsules of

the permanganate for a young lady, unmarried, twenty-two years of age, and somewhat debilitated, who had been suffering from amenorrhœa for four or five months. After the first dose she complained of severe burning pains from the throat to the pit of the stomach, was nauseated, pulse rapid and rather weak. This was supposed to be due to some irritating article of diet, and the patient drank a quantity of milk, which eased the pain somewhat. The next morning when she took the second capsule there was a repetition of the symptoms of the previous evening, only more severe. The patient was intensely nauseated and vomited, complained of intolerable burning in the stomach and throat, was almost pulseless, completely prostrated, and did not fully recover for two or three days.

Subsequently, in the case of another young lady, unmarried, and about the same age and condition of health, who had suffered from suppression of the menses for two months, he prescribed one-grain capsules with the same result, pain like a flaming fire in the stomach and throat, and generally symptoms of shock and collapse.

Since then neither of us has prescribed permanganate of potassium internally.

Before the drug is too freely prescribed in full doses its toxic action should be more carefully investigated and better understood.—*Boston Med. and Surg. Jour.*, Aug. 12, 1886.

Fulton (D. H.) on Acute Nicotism.—A boy of six or seven years had been in perfect health prior to an attack of vomiting and purging, for which his mother could assign no cause. I found him in a state of collapse—the circulation depressed, pulse at first frequent, irregular, and feeble, but soon becoming slower, beating about 50 to the minute. He suffered the most distressing nausea, and a sinking sensation at the stomach, accompanied by muscular relaxation. The face was pallid, with dark circles beneath the eyes; the skin, particularly on the extremities, being cool and clammy; the temperature was slightly reduced below the normal; the pupils were contracted, sight very dim, and sensibility to outward impressions impaired; while consciousness was retained, the condition of the mind was apparently one of apathy and indifference. He strenuously and repeatedly denied having taken any thing in the way of poisonous substances, and I proceeded to treat the case on general principles.

He was subjected to the most active stimulation by whiskey internally and externally, was rolled in warm blankets, and bottles of hot water applied to the extremities. To facilitate reaction a hypodermic of whiskey was administered in the calf of the leg, and digitalis given for its specific action upon the heart. As violent emesis had occurred completely evacuating the stomach, the stomach-pump was not brought into requisition. With these means the depressed powers of life began to rebound, the peripheral circulation increased, the heart gained strength, and the boy rapidly recovered. The source of poisoning proved to be an old and very strong pipe which the boy had gotten in trade.—*Kansas City Med. Record*.

Harrington (Chas.) on a not Well-recognized Source of Domestic Poisoning, with Cases.—It is a well-known fact, that the workmen employed in the manufacturing and handling of bichromate of potassium are almost without exception subject to the so-called "chrome disease," in which severe ulceration of the skin and mucous membranes and perforation of the nasal septum are the most marked and common symptoms, produced by the irritating and corrosive action of the dust to which they are exposed; and it seems not unreasonable to suppose that under favorable circumstances, equally severe symptoms might be brought about by the wearing of apparel in whose fibre compounds of chromium have been precipitated. And further, it may be assumed that the accidental introduction of dust from the same cloth into the stomach might well be followed by the characteristic symptoms produced by the ingestion of chromates.

The first case was a cap-maker who, while handling the cloth, began to suffer intolerable itching and unquenchable thirst. There was much soreness of the eyes, nose, and mouth, burning in the throat, and a feeling of discomfort in the stomach.

Shortly there appeared considerable ulceration of the neck, breast, thighs, and hands, most marked about the nails of which she lost five.

The ears were swollen. The cloth was examined, and found to contain large amounts of chromium.

In the second case the poison came from gloves.

To use his own description, "at first it was in the form of pimples, but afterward

many of them ran together and became blotches."

The pain and irritation continued a month or more, during which time considerable ulceration occurred. At the end of another month, the ulcers, which were quite large and deep, had nearly healed.

The third and fourth cases were boys who were poisoned by new clothing.

The initial symptoms were nausea, pain in the stomach, and vomiting, followed by headaches, pain in the lips, gums, and throat, and intense thirst.

In one child there was a temperature of 102.6°, pulse 130, great restlessness and convulsions. Both had earache. There were on the ninth day bloody stools, which contained chromium.—*Boston Med. and Surg. Jour.*, Aug. 12, 1886.

MEDICINE.

Broadbent on the Remote Effects of Remedies.—After referring to the well-known after-effects of alcohol, he alluded to the mental and bodily derangement induced by eating opium, the miserable irresolution and wretchedness of the man who habitually resorts to chloral, and the childish dementia brought on by the prolonged use of the bromides. He thought that coca is already beginning to claim its victims, who gradually develop an excitement which becomes maniacal or an exaltation like that of general paralysis. The subject of gout was given as illustrating the remote effect of remedies. The effect produced by continued and excessive use of colchicum and other drugs having a similar action, and the consequences following the neglect of such treatment which will clear the system of the gout poison, were especially drawn attention to. With reference to the latter he urged: "It can scarcely be too often repeated that all the effects upon the arteries on the one hand and the heart on the other, associated with contracted granular kidney—viz., arterial degeneration, cerebral hemorrhage, aneurism and dilatation of the left ventricle, and valvular disease—are just as commonly produced independently of kidney disease by high pressure in the arterial system due to other causes; and such pressure in an extreme degree may be induced prematurely by the means taken to keep down gout." Another cause of injuriously high arterial tension was the "Banting"

treatment of obesity as understood by the public. In this the non-nitrogenous sugars and starches were taken very sparingly; the amount of fluid taken into the system reduced as much as possible, and the subject lived on a highly nitrogenous diet. The imperfectly oxidized nitrogenized waste present in the blood provoked resistance in the capillaries, and generated tension in the arteries. Exercise and an adequate supply of water, which were generally omitted, were essential to active metabolism and the working off of impurities. Another example of injury given was that furnished in asthma. Certain drugs afford alleviation of symptoms, but many popular powders contain powerful alkaloids, which produce after-effects on the nervous and vascular systems. "When we see the stupefied mental condition and the congested face and eyes, and note the large, weak, sluggish pulse, showing paralysis of the arterial walls, it is clear that such effects cannot be indefinitely repeated with impunity." "The right ventricle loses its tone like the muscular coats of the arteries, and, instead of becoming hypertrophied, yields to the resistance in the pulmonary circulation, and is dilated, finally giving rise to systemic venous stasis and dropsy." A striking illustration of his subject was given by the too careful and restricted diet of certain forms of so-called indigestion. One kind of food after another was left off, but still with the same discomfort and a sense of repletion after food. The appetite being wanting, a starvation point becomes almost reached. Instances of severe neuralgia, spurious attacks of angina pectoris, and serious debility were related as having followed this line of treatment. Again, in the winter indigestion of women and weakly men, the functional energy of the stomach required stimulating by extra food, such as beef-tea, egg-flip, stimulants at meals, and tonics. What was wanted in winter indigestion was protection from the depressing influence of cold or the means of neutralizing it.—*Lancet*, Aug. 21, 1886.

Lemaistre (J.) on a New Parasitic Affection of Childhood: Perlèche.—Perlèche is the popular name for the disease to be described, which is quite common in the country about Limoges. The disease commences in the labiæ commissures. The epithelium becomes whitened, then macerated, and then detached with ease. The lesion spreads to the cutaneous

surface of the commissure, when, of course, it becomes evident. Generally the superficial layers of the epidermis only are attacked. Sometimes there are small linear cracks, which cause pain and slight hemorrhage when the mouth is widely opened. The lesion has some resemblance to mucous patches and certain commissural rhagades of syphilitic children. The disease lasts, on the average, fifteen days to a month. It is contagious and generally spread by drinkutensils in common use among school-children. M. Lemaistre has found microorganisms in the diseased regions, and considers the malady of a parasitic nature. He has cultivated this microbe, and names it the *streptococcus plicatilis*. He has found it in the water of springs and wells, near which the disease is very common.—*Prog. Méd.*, July 17, 1886.

Macdonald (A.) on the Treatment of Two Forms of Diarrhœa in Children.—There is no greater certainty in therapeutics than that "infantile cholera"—profuse watery diarrhœa—will be cured if treated within the first few hours by one sixth of a grain of gray-powder given hourly even by itself. But I give usually one sixth of a grain of hydrargyrum cum creta, with two grains of lactopeptine; and in some cases I administer as another *adjuvans* a vegetable astringent, such as krameria. Again, when the stools are slimy, with, it may be, blood streaks, I give liquor hydrargyri perchloridi, two and a half drachms in two ounces of water, of which a teaspoonful given every hour meets the case.

The diet should be cold, consisting of arrowroot made with water, and very slightly sweetened; barley or rice-water to drink. One case which was baffling the gray-powder was explained by the presence of a piece of undigested beef on a napkin. Maternal ideas of feeding have sometimes to be sharply enlightened.—*Br. Med. Jour.*, Aug. 21, 1886.

Vaillard on Changes of the Peripheral Nervous System in Chronic Rheumatism.—In two subjects, the victims of chronic rheumatism, with ankylosis of many articulations, deformity of the hands and feet, various trophic troubles, ichthyosis, etc., the author, with M. Pitres, had found the peripheral nervous system the seat of profound and diffuse lesions, which corresponded exactly to those of degenerative parenchymatous nephritis.

M. Luys stated that in similar cases he had seen an atrophy of the cord, with proliferation of the neuroglia, thickening of the pia, etc.—*Gaz. des Hôp.*, June 22, 1886.

Pierret on the Peripheral Neuritis Observed among True Tabetics.—

This pathological condition was first pointed out by the author in 1880, and now, after new observations, he affirms the great frequency of peripheral, cutaneous neuritis among tabetics. He is satisfied that the lesions are not absolutely constant, and that they are sometimes recovered from in recent cases of posterior spinal sclerosis. He accounts for this by the supposition that the peripheral lesion is only the translation of the inflammatory irritation of the sensitive zones to a distance, for which reason recovery can take place and remissions occur for a longer or shorter time.—*Gaz. hebdomadaire de Méd. et de Chir.*, July 2, 1886.

Pitres (A.) and Vaillard (L.) on the Peripheral Neuritis of Tabetics.—

The neuritis of tabes does not differ in any of its anatomical characteristics from other forms, known as non-traumatic neuritis. Its topographical distribution is very variable, involving sensory, mixed, and visceral nerves. Generally, but not always, it commences at the periphery of the nerves affected. Its extent and gravity bear no constant relation to the age, extension, or depth of the spinal lesions of ataxia. It probably has nothing to do with the production of the specific symptoms of tabes, fulgurating pains, inco-ordination, abolition of knee reflex, and disturbances of muscular sense. Other symptoms seem to have a direct causal relation with the neuritis. They are: the patches of cutaneous analgesia or anæsthesia; trophic disturbances of the skin; certain motor paralyses, accompanied or not by muscular atrophy; arthropathies, and spontaneous fractures of bone, and the different visceral crises.—*Rev. de Méd.*, July 10, 1886.

Zenner (Philip) on the Value of the Knee-Phenomenon in the Diagnosis of Diseases of the Nervous System.

—If, in any person, with no other assignable cause, we find an entire absence of the knee-phenomenon, we should look for other symptoms of locomotor ataxia, and if any other symptoms are presented, the diagnosis is assured. But before pronouncing it absent, the patient should be carefully examined, especially by the aid

of Jendrassik's method. The method is as follows: The individual, seated with the legs crossed, is requested to link the bent fingers of one hand into those of the other, and pull energetically. During this effort, the examiner strikes the patellar tendon. The effort heightens the muscular tonus, or increases the tension of the muscle and tendon, and makes the knee-jerk more marked. In some instances, it would even be well to examine several times before pronouncing a final verdict, partly because there is sometimes such difference in the degree of response at different times in the same individual, partly because an unrecognized attack of diphtheria, or the like, may have caused its temporary disappearance. *Four. Amer. Med. Ass'n*, July 10, 1886.

Clark (D.) on the Medical Jurisprudence of Crime and Responsibility.—The writer drew the following conclusions:

(1) The natural history of crime shows that brains of chronic criminals deviate from the normal type and approach those of the lower creation.

(2) That many such cases are impotent to restrain themselves from crime, as are the insane.

(3) That the moral sense may be hidden from expediency by the cunning seen even in the brutes, until evoked by circumstances.

(4) No man can make himself free from the physical surroundings in which he is placed.

(5) Crime is an ethical subject of study outside of its penal relations.

(6) Insanity and responsibility may co-exist.

(7) Some insane people can make competent wills because rational.

(8) The monomaniac may be responsible, should he do acts not in the line of delusion, and which are not influenced thereby.

(9) Many insane are influenced in their conduct by hopes of reward or fear of punishment, in the same way as the sane.

(10) Many insane have correct ideas in respect to right and wrong, both in abstract and concrete.

(11) Many insane have power to withstand being influenced even by their delusions.—*Canadian Practitioner*, Sept., 1886.

Richardière (H.) on the Glycosuria and Diabetes in Disseminated Sclerosis.—Sclérose en plaques by involving the

floor of the fourth ventricle may give rise to special urinary disturbances. These urinary troubles consist sometimes of polyuria, sometimes of glycosuria, and sometimes of diabetes.—*Rev. de Méd.*, July 10, 1886.

Howard (Jos. T.) on Uroglauclin.—About 1845 Heller discovered in urine a peculiar substance which he called uroxanthine, which, by further treatment with acid reagents at a high temperature, yielded a blue uroglauclin and a red pigment, urrhodine.

Now in no instance on record, so far as I have been able to ascertain, except, perhaps, the cases of James Planeus and of M. Julia, can it be inferred that indigo was ever found spontaneously dissolved in the urine. Heller found it by his chemical tests most frequently in persons with disease of the kidneys and spinal cord—a circumstance which, as regards the last mentioned, coincides more nearly with the pathological condition of my patient, who for some time had been laboring under a severe attack of sciatica, in which the medulla spinalis, or its appendages, were more or less involved.

The following is my case: W. R., æt. sixty-three, complained of great pain in the back and down the left lower extremity, along the course of the great sciatic nerve and its branches, which, after a regimen of counter-irritants, purgatives, and alteratives, showed signs of abatement and gave promise to the patient of an early recovery. One day after the usual morning visit, I was sent for in great haste on account of the blue urine the patient had but a short time before passed. Although unable at the time to explain the phenomenon, I was satisfied from the patient's general condition that there was no cause for uneasiness regarding him, and so expressed myself. Upon examining the urine I found it to be of a deep indigo-blue color, and being assured that it had been voided in that condition I was satisfied. If proof had been necessary it was present in stains upon the bed linen.—*Four. Am. Med. Ass'n*, Sept. 4, 1886.

Dulles (Chas. W.) on the Detection of Chronic Bright's Disease.—In the first place, I am strongly impressed with the advantage of allowing the sedimentation of a specimen to take place in a straight glass, and not in a conical one, as is recommended in most of the books. In

the latter, I think, one may easily miss a few tube-casts, because they are not heavy enough to resist the attraction and friction of the sides of a conical glass, and so never find their way to the bottom. For this purpose a test-tube with a foot, I think, is the best receptacle.

Another point to which I desire to call attention is the plan I have devised for catching a specimen of sediment for microscopical examination when the deposit is very slight. After leaving the urine to settle in a test-tube with a foot for twenty-four hours, under a paper cover pressed down upon and around the top of the tube, I take a long, pointed glass tube, close the upper end firmly with my finger, and, pushing the point through the centre of the paper cover of the test-tube, thrust it steadily to the bottom of the urine. I now remove my finger, and the bottom layer of the urine, containing the deposit of twenty-four hours, flows up into the long tube. When it has risen to the level of the urine in the test-tube, I carefully twist a piece of soft paper over the upper end of the second tube, or stuff a small bit of absorbent cotton into it, to keep out all foreign substances, and allow the apparatus to stand undisturbed for twenty-four hours or longer, during which the deposit contained in the column of sediment falls to the bottom of the smaller tube. At the end of this time I close the upper end of the smaller tube firmly with a finger, withdraw it carefully from the test-tube, and then allow the two or three drops nearest its point to run out on a slide, in two or three places, cover them properly with thin glass, and put them under the microscope.

In this way, I believe, one may obtain a most typical specimen of the deposit.—*Med. News*, Aug. 28, 1886.

Armstrong (S. E.) on a New Method for the Detection of Hyaline Casts.—The hyaline cast may be said to form the stroma of all other varieties—the oily, epithelial, granular, etc. It is always found in some of the different stages of any of the forms of Bright's disease, particularly in the first stage, when a recognition of the trouble is most to be desired. The propriety of making a positive diagnosis on the strength of this one sign may justly be questioned, but there are usually other symptoms, objective or subjective, to aid us. Of course, the use of the microscope

in the search for hyaline casts is an absolute necessity. Two methods are usually taught, viz., staining and tilting the mirror. There is another method, which comes to me in the nature of a discovery. Briefly, it consists in preparing the specimen in the usual way, between a plain slide and a cover-glass. Then placing the slide in position and adjusting the focus, the observer, with his eye at the instrument, presses the cover-glass down with a thumb on either side of the objective, and then the slide being held firmly by the clips, pushes the cover-glass a little bit forward and back. By this means he has the advantage of *looking for an object in motion*; also, a cast, if present, is made to pass, rotating on its long axis, through different planes of the fluid, *hence through different possible foci*. By this means alone it is almost sure to be discovered. But there is still another advantage in this method, viz., as the cast revolves through the liquid it gathers on, perhaps amorphous urates, vibriones, or whatever minute object it comes in contact with, and is thus brought out into bold relief. Of course we must by previous examination exclude granular casts, otherwise *after* manipulation we may be puzzled to tell which variety we have discovered; we must also be sure we have not rolled out a white blood- or pus-corpuscle, so that it misleads us into the belief that we have found a short one of either one or the other variety. Prolonged manipulation is neither necessary nor advisable.—*N. Y. Med. Record*, Sept. 4, 1886.

Davenport (B. M.) on the Physical and Chemical Qualities of Ordinary Cow's Milk.—The question of the age of the milk which is given to our city children, I consider of very much greater importance than it is usually deemed by physicians. There is no fluid that I know of which is a more rapid absorbent of foul odors of all kinds, or which offers a more fertile field for bacterial growths. Yet most of the milk, even when just delivered to the consumers in this city, is already in its third day of age, and has been exposed to a probability of contamination so great that I very much wonder that it does not become downright soured before the time of the next daily delivery. Very much of it is very little short of this stage. I am firmly persuaded that it is to this changed condition of the milk, to which city folks have become so accustomed as to consider

it the proper and natural condition, that a very large proportion of the summer diarrhoea, and the resulting mortality among the children in our cities, is due. If any one wants ocular proof of the grosser forms of contamination to which city milk is exposed, he has but to visit any of the larger milk depots of the city, and to look at the nature and the quantity of the foreign material left upon the cloth strainers connected with the centrifugal machine used for separating the cream from the surplus milk of the day. If he does not then learn by seeing with his own eyes what he could otherwise hardly be brought to believe, I am very much mistaken as to what are the real facts. Very fortunate, indeed, would it be if only the fine and already dissolved impurities could also be thus readily separated out from the milk.

We, as physicians, have learned to know that milk about upon the point of changing will more disturb the digestion of a child than that which has already turned sour. I believe that the difference in coagulation between breast and cow's milk in a child's stomach is more owing to the difference in the chemical reaction of these two milks, and in the amount of albuminoids contained therein, rather than to any difference in the nature of these albuminoids, for cow's milk, even when fresh, is of an acid reaction, while breast milk is neutral, or may be slightly alkaline. Then, too, cow's milk contains a much larger amount of albuminoids. Making cow's milk of a neutral or slightly alkaline reaction will render this curd finer and softer, and this is also accomplished by diluting with fluids or with soft solids, for which barley flour or malted extract serves well.

When it is desired to add cream to the diluted and sweetened milk when prepared for a child, I think it is better here in the city to use sweet cream raised by the centrifugal machine, rather than that obtained by separation from standing, which necessitates it being just so much the older, when one of the chief troubles is that it is already too old. Such sweet cream is to be had at the large milk depots in the city.

I think that if physicians would instruct all their patients to demand that their milk be delivered to them the same day it is brought into the city from the country, this would become the more common custom of the trade, and that there would be a marked decrease in the infant mortality

during the summer months, for if we cannot secure proper cleanliness in the care of the milk, we might at least thus shorten materially the time during which fermentative contaminations would have a chance to work out their harmful changes.—*Bost. Med. and Surg. Jour.*, Aug. 26, 1886.

Abbott (S.W.) on Wolpert's Air-Tester.—Recognizing the fact that, thus far, no better test of the pollution of air by the products of respiration and combustion has been found than the per cent. of the carbonic acid which it contains (the normal amount in pure out-door air being from 3 to 5 parts per 10,000), the little instrument known as Wolpert's air-tester, described in a recent article by that author,¹ answers the above purpose fairly well when strict accuracy is not required. Some such instrument ought to be found, and used in every school-room, work-shop, or other apartment liable to vitiation of its air.

This little instrument consists of a simple rubber bulb of a capacity of 28 cubic centimetres, a glass outlet-tube, with a constriction near its extremity. A glass test-tube 12 centimetres in length, and 12 millimetres in diameter, has a horizontal mark near the bottom, indicating the point to which it must be filled with perfectly clear lime-water, to contain 3 cubic centimetres. The bottom of the tube is whitened, and has a black mark stamped upon it. A small wooden stand, a brush or swab, a vial of vinegar for cleaning the tube, and a bottle of clear lime-water, complete the outfit.

In order to use the instrument, the lime-water (saturated solution) should be poured into the test-tube till it reaches the horizontal mark. Press down the bulb with the thumb, so as to expel the air within it as completely as possible, and allow it to fill, with the air of the apartment, insert the small tube into the lime-water to the bottom, and again expel the air with moderate rapidity, so that the bubbles may rise nearly to the top of the tube, but do not overflow, taking care to continue the pressure of the thumb till the small tube is removed from the lime-water. Repeat this process until the mark upon the bottom of the test-tube is obscured by the opacity produced by the reaction of the carbonic acid upon the lime-water, the observer looking

¹ *Einfache Prüfung der Luftreinheit in Wohnräumen*, von Dr. Wolpert, Prof. in Kaiserslautern. *Centralblatt für Allgemeine Gesundheitspflege*, vol. ii., p. 231.

downwards through the lime-water, from the top of the test-tube.

With very foul air, it is necessary to examine the mark after filling and discharging the bulb a few times only ; with good air, it must be filled twenty-five times and upwards.

The bulb is made a little larger than the required capacity, since a small amount of residual air usually remains in the bulb and cannot be expelled without great care.

After each observation, the test-tube must be washed out and wiped dry. If a white incrustation forms upon the tube, it may be easily removed with a little vinegar, after which the tube should be thoroughly washed with pure water and dried.

If the mark becomes obscured after filling the bulb ten or fifteen times only, the air of an apartment is unfit for continuous respiration.

In a sick-chamber, the air should be so pure that the turbidity of the lime-water will not render the mark invisible until thirty or forty fillings are made.

The instrument should be used by daylight, over a white ground, as a sheet of writing-paper, and care should be taken not to vitiate the result by the observer's own breath.

The following approximate table is taken from the article by Professor Wolpert, the first column representing the number of fillings of the bulb, and the second column the parts per 10,000 of carbonic acid in a given sample of air.

Number of Fillings.	Carbonic Acid per 10,000.	Number of Fillings.	Carbonic Acid per 10,000.	Number of Fillings.	Carbonic Acid per 10,000.
1	200.	21	9.5	41	4.9
2	100.	22	9.1	42	4.8
3	67.	23	8.7	43	4.6
4	50.	24	8.3	44	4.5
5	40.	25	8.	45	4.4
6	33.	26	7.7	46	4.3
7	29.	27	7.4	47	4.2
8	25.	28	7.1	48	4.1
9	22.	29	6.9	49	4.1
10	20.	30	6.6	50	4.
11	18.	31	6.4	51	3.9
12	16.	32	6.3	52	3.9
13	15.	33	6.1	53	3.8
14	14.	34	5.9	54	3.7
15	13.	35	5.7	55	3.7
16	12.5	36	5.5	56	2.6
17	12.	37	5.4	57	3.5
18	11.	38	5.3	58	3.5
19	10.5	39	5.1	59	3.4
20	10.	40	5.	60	3.3

—*Boston Med. and Surg. Jour.*, Aug. 12, 1886.

PATHOLOGY.

Galippe (V.) on the Presence of a Parasite in Scrotal Concretions.

—On the scrotum of certain persons are found small rounded bodies, more or less prominent, which have the feeling of calcareous concretions. They are easily removed by cutting through the thin layer of skin which overlies them. They are bluish, dense, and resemble small biliary calculi, their faces being smooth and their corners rounded. They contain cholesterine and seem to be developed from the sebaceous glands. M. Galippe has discovered in them, isolated and cultivated, a micro-organism.—*La France Méd.*, Aug. 17, 1886.

Reynolds, D. S., on the Bacillus of Typhoid Fever.—On the 26th March I received the following note, with a bottle of water :

"DR. REYNOLDS: This water is from a well which has been used for household purposes in a family in which three deaths have recently occurred from typhoid fever ; to-day there are two new cases in the family. Please give it your earliest attention, and oblige
Your friend,

"JOHN A. LARRABEE."

That afternoon twelve cover glasses, previously sterilized, were covered with as much water as would conveniently lie upon them, and after evaporation the residuary matter moistened with egg albumen from an egg broken up then and there ; these were again dried and stained, some violet, some blue, and others brown. Those stained with violet presented bacilli in great abundance, which appeared as beautiful jointed rods curled at the ends, the rods being violet-red with a line or dot of intense blue in each joint. Those stained otherwise were not as satisfactorily made out.

The day following Dr. Larrabee sent me a four-ounce bottle filled with putrid matter of a brownish brick-dust color, said to be blood passed from the bowels of one of these patients. This was treated after Letzerich's method, when an abundant collection, in fact a pure culture, of bacilli identical in every respect with those found in the water from the well were observed. The water of an uncovered cistern, filled to within four inches of the top, and situated five and a half feet from the kitchen door, contained large quantities of bacilli identical with those already described. Twenty-

two feet away, on a slightly elevated surface, was a pig-pen which was not closed, but into which the hogs came to be fed and in which they slept. It was said no hogs had died about the premises, but on the margin of Beargrass creek, 240 feet distant, the carcasses of several dead hogs were found.—*The Medical Herald*, Aug., 1886.

Machiafava and Cilli: Studies on Malarial Infection.—In the blood of individuals stricken by recent malaric infection, we find in the red globules parasitic organisms constituted by a parcel of homogeneous protoplasma, endowed with an amœboid movement, possessing great vitality, and distinctly colorable. These characters of parasites are found only in malaric infection, which the authors proposed to designate by the term *plasmodium malaricæ*.

In the interior of these plasmodies, we often find a reddish or brown pigment, which does not form a constituent part of these plasmodies, but which proceeds from the transformation in melanine of the hemoglobin which they take up from the red globules invaded by malaric infection. The presence of pigment in the hemoplasmodies is not constant, and may be absent even in cases of very grave infection (pernicious fever). According as the production of pigment does or does not take place, we have malaric infection with or without melanemia.

The hemoplasmodies, by a process of scission, are converted into small clusters of corpuscles, which, being deprived of amœboid movements, show themselves in the colored preparations identical with the hemoplasmodies without pigment contained in the red globules. This segmentation is effected as well in the pigmented plasmodies as in those which are not (cerebral capillaries), and it is probable that it represents their mode of multiplication in the organism.

Malaric infection is transmissible to man by means of intravenous injection of malaric blood. This fact is demonstrated not only by its clinical progress, but also by the establishment, in the blood of the person inoculated, of hemoplasmodies which augment progressively in the blood of the inoculated, according as the injection develops, and which at the decline of the malady diminish rapidly, become immobile, and may disappear under the action of specific treatment.—From *Four. d'Hygiène in Am. Pract. and News*, Sept. 4, 1886.

Ferguson (J.) on Abnormally Short Cordæ Tendinæ.—In the *Canadian Journal of Medical Science* for the year 1882, at page 292, I ventured to suggest this as at least one cause for regurgitation; and that the shortening might come from swelling of the part in cases of inflammatory rheumatism.

Since that date I have been able to procure some good examples of this condition. In two there was the history of rheumatism, but in the third there was no reason for thinking the person had ever had rheumatism.

In this latter case all the structures of the heart were perfectly healthy—the only abnormality being very short tendinous cords, which prevented the mitral valves from falling back with sufficient freedom to close the orifice. Hence a regurgitant murmur existed during life.

A condition such as this would naturally tend to get worse.

In the two cases where there had been rheumatic endocarditis, the swelling of the tissues had led to their contraction, and thus the cords in these cases were shortened.—*Canadian Practitioner*, Sept., 1886.

Faunce (C. E.) on a Case of Rupture of the Spleen.—John D., aged twenty-five, fell heavily on to his left side, into a drain, but he only complained of having hurt his "shins," and went on. Returning to the camp, deceased again fell, but rose all right, and said "good-night" to his companion.

At 10 o'clock P.M., he was found lying near a tent, by a sergeant, who, with the help of another man, took him to his tent and put him to bed. At 3 A.M., a comrade who was sleeping in the same tent woke up and found the deceased "creeping about," saying that he wanted "to go to the rear"; but when he tried to take him thither he refused to go; he therefore put him back to bed again, and the next time he saw him he was dead—he was found dead in his bed at 5 A.M.

Although the man was stated to have been sober, he had evidently been drinking a good deal without becoming absolutely drunk. He had served in India for six years, and during that time had been five times in hospital for ague; and it was on account of his debility from malaria that he was being sent to the hills.

Post-mortem Examination, made about Four Hours after Death.—There were no

marks of external violence, except a recent-looking bruise, about two inches long, over the crest of the ilium. On opening the abdomen, a large quantity of dark-colored blood escaped, measuring two pints. The peritoneum was normal in appearance, and the intestines did not show any signs of injury or congestion. The stomach was empty, and no odor of alcohol was detected. On removing the intestines and examining the cavity of the abdomen, the spleen was felt to be ruptured, with a number of large blood-clots lying in its vicinity. This rupture extended along the whole convex surface of the organ, and at its lower part right through its substance. The spleen weighed twenty-two ounces, was very congested, and extremely friable. The liver weighed fifty-two ounces; it was pigmented and congested, but its substance was firm. All the other organs were healthy.—*Br. Med. Jour.*, Aug. 28, 1886.

SURGERY.

Hawkins (A. F.) on Thrust Wounds through the Orbit.—A female pupil (aged three) at a neighboring Board school fell on the floor while in the act of knitting, and broke one of the needles. Two pieces were found, measuring respectively three quarters of an inch and four inches and three quarters, but on joining them and comparing them with the other needle it was evident that a considerable piece was missing. The child seemed dazed for a moment, but then went on with her lessons, the schoolmistress noticing at the time a spot of blood above the eyelid and just under the eyebrow on the right side. The next day the child again attended school, apparently all right, but when she presented herself the following day she did not seem quite so well, and it was deemed prudent to take her to the Queen's Hospital Casualty Department, at the time in charge of Mr. Hawkins. He noticed a small scab where the blood-drop had appeared at the time of the fall, but as the child presented no special symptoms, he advised that she should be taken home and carefully watched, diligent search to be again made for the missing piece of needle, and the child to be brought to the hospital at once if in any way complaining. Next day (fourth from the accident) the child was brought to the hospital with paralysis

of the left side, more marked in the upper than in the lower extremity. Mr. Hawkins at once summoned a consultation, which was attended by Mr. Bennett May and Mr. Priestley Smith. The child was placed under chloroform, and an incision made through the eyelid and subjacent tissues in the situation of the original blood-spot. At a depth of about three quarters of an inch the probe came in contact with a hard substance, which was seized with a fine pair of forceps and drawn out, proving to be the missing piece of knitting-needle. As the child was lying flat on the table during the operation, it was specially noted that in drawing out the needle it was almost perpendicular to the eye; if the deeper end deviated at all, it was slightly upwards. The symptoms of paralysis continued for ten days, when they began to subside. They then did so rapidly, and the child was well within another week. She continued so when seen a year afterwards.

The concurrent practical teaching of these cases is that great importance must be attached to all wounds, however small and apparently insignificant, in the neighborhood of the eye as well as in the globe itself, especially if there be the slightest reason to suspect penetration and lodgment of a foreign body. In consequence of the looseness of the soft tissues, and of the bony spaces in the neighborhood of the eye, it is not difficult to understand that foreign bodies may be driven into, and ensconced in, comparatively safe quarters, though apparently driven into the brain. But in some cases the symptoms, in others the necropsy, place beyond doubt brain penetration in some thrust wounds through the orbit. Immediate extraction is obviously indicated when any portion of the offending agent can be seen or felt, and the last-mentioned case in the series justifies the prudence of cutting down to search for the foreign body, when its presence is strongly indicated by the facts and history of the accident, and by the evolution of nervous phenomena.—*Lancet*, July 17, 1886.

Horsley (V.) on Advances in the Surgery of the Central Nervous System.—In introducing the subject, the author laid special weight on the fact that all the advantages, both scientific and operative, claimed in his paper were the results of lessons learned from experiments on monkeys. It had been said that monkeys were not quite like human beings, but

this was not correct from a surgical standpoint. Time did not allow of any elaborate details, so the author contented himself with a brief recapitulation of the chief facts of the case. He referred to (1) the preparation of the patient for the operation, which consisted in shaving the scalp, and then *thoroughly* cleansing the head; (2) anæsthesia—for this he preferred chloroform, previously giving subcutaneously a quarter of a grain of morphia; the morphia produced contraction of the arterioles of the brain, and there was consequently less oozing, and a less amount of chloroform sufficed; (3) strict Listerism, pure and simple—the spray was used, and the usual gauze dressings; (4) the line of incision—instead of the old-fashioned crucial flaps, a semilunar was advocated, as being easily displaced out of the way of the later steps in the operation, as less likely to suffer from interference with the blood circulation, and therefore with the vitality of the flap; (5) the use of large trephines—it was so difficult to hit the exact spot, and yet so necessary to have ample room, that the old small trephines were comparatively useless; (6) McEwen's plan of replacing the bone—the bone after removal was preserved in hot carbolized sponges, cut up into small pieces and placed in the opening between the dura mater and the scalp. The brain being exposed, the first question to decide was whether it bulged into the opening or not—normal brain, Mr. Horsley said, never bulges at first; if an operation lasted an hour or more some bulging became evident. If the brain bulged at first, it was presumptive evidence of the presence of a tumor; a yellowish color and venous congestion were likewise suggestive points. The lesion being found, how was it to be treated? The use of the actual cautery led to secondary troubles, so he used a knife and excised what had to be removed, which must be all that was necessary, but not one bit more. There would doubtless be some considerable oozing at first; if so, a sponge should be pressed into the incision. The tumor or diseased part having been removed, it was desirable to close the wound as quickly and as accurately as possible; primary union of the skin flap was almost essential to success. Drainage was required for twenty-four hours only; if more serum collected, a small probe should be passed in to let it out, but a little tension did no harm, as it kept the brain matter in its

place until cicatrization was complete. Hernia cerebri only occurred as the result of decomposition. Mr. Horsley then demonstrated his three patients; they had quite recovered from the operation, and were well enough to travel to Brighton and be exhibited to the meeting. The main clinical symptoms were epileptiform fits, two of the cases following injury with subsequent scarring of the convolutions; the third case was one of tumor, which was accurately localized by the manner in which the fits (to which it gave rise) invariably commenced.—*Lancet*, Aug. 21, 1886.

Hyde (Fred.) on Fracture of the Base of the Cranium.—The anatomy and physiology of the base of the skull render its fracture more fatal, independently of its inaccessibility to direct surgical treatment, than when the lesion is restricted to the cranial vault.

The symptoms determining the diagnosis in basal fracture are caused by meningeal and cerebral lesion involving the origin of nerves in its continuity, often both, as well as lesion of blood-vessels.

While the displacement of fragments in this fracture is but little in the majority of cases, it will be more in the minority; and it is not uncommon, when the displacement is not detected in the outer table, that the inner will be comminuted and the fragments lodged in the subcranial tissues, with blood-extravasation.

In the majority of examples of this fracture the symptoms of cerebral pressure are plainly marked; if not early, they appear only a little later, and yet so early as to prove that they are the immediate result of the injury, rather than from inflammatory products which appear later.

When the fracture involves the lower part of the parietal bone, and the temporal with its petrous portion if compound, or only contusion of the part receiving the blow or force with marked symptoms of this fracture, an incision made at or over the site of the bruised scalp will aid in detecting the extent of the injury.

If fragments of bone or blood can be reached, remove them; and if there be slight or greater displacement, with positive symptoms of pressure which cannot be removed, then apply the trephine, elevate the depressed bones, and if there be blood, remove it.

In this fracture, when caused by the direct application of force, as may be in

the frontal sinus and in the proximity of the base of either fossa, with positive symptoms of brain-pressure, the hopeless condition of the case left to the expectant treatment, if there be no opening through the soft coverings of the bone at the point receiving the injury, warrants making an incision for exploration, that its cause may be better defined, and if it cannot be removed without, then use the trephine.

In all cases, if the operation of trephining is to be made, it should, as in vault-fractures, be done at once after the receipt of the injury, to shorten the time of pressure upon vital textures, and before inflammation has occurred.—*Phila. Med. Times*, Aug. 21, 1886.

Hunt (J. G.) on Introduction of Foreign Body into the Brain with Suicidal Intent.—On my arrival at his house, I found the patient sitting in a chair as unconcerned as could be. I asked him what the trouble was, and he told me that he had attempted to commit suicide the night before by driving a nail into his brain.

I went back to my office and procured a pair of incisor tooth forceps, and, after using extreme force, I managed to start the nail, which was carefully drawn out in the line of penetration.

The nail by actual measurement was two and a half inches long, and was what is known as an eight-penny nail. Not more than two or three drops of blood followed its removal. I sponged the wound carefully, and inserted in the "nail hole" to the depth of about one and a half inches a little twisted oakum, saturated with a weak solution of carbolic acid. This tent was changed quite a number of times daily. A pad of cloth wet with distilled extract of witch hazel was kept over the oakum. I put him on fluid extract of ergot gr. xv. every four hours, and gave him a cathartic which operated thoroughly the next morning. As he had been suffering, previous to the attempt at suicide, with dyspepsia, I also put him on oxalate of cerium. His temperature did not rise above $99\frac{1}{2}^{\circ}$ at any time, and his pulse not over 89. I continued this treatment from day to day, and the wound gradually closed, having been open fifteen days. The wound discharged but very little pus, probably not over a drachm and a half during the entire period of suppuration. He complained of no pain during this time, and upon inquiry he said

that he felt as well as ever in regard to his head. He still, however, continued to have trouble with his stomach, suffering periods of nausea which resisted treatment.

He told me that he had been suffering severe pain in the stomach and head for months, and had passed sleepless nights for nearly as long.

One day, after reading in a German paper an account of a man putting an end to himself by driving a nail into his brain, he resolved to kill himself in the same way. He procured a hammer and the nail above described, and succeeded, as he told me, in driving it completely home with six blows. He told me he expected to die instantly, believing the result of his work would be as fatal as that he had read of. After hiding the hammer, he went to bed, fell asleep, and did not awake till 4.30 A.M., having slept about three and a half hours after the nail had entered his brain.

From about the 4th to the 20th of July he enjoyed apparently good health, but about the 20th his nausea became worse, and he passed into a comatose state, in which he died July 30, 1885. Urinary analysis had revealed nothing abnormal.

On post-mortem examination the bones of the skull were of ordinary thickness, calvarium rigidly adherent to the dura mater throughout, requiring dissection to free it; adhesions most extensive, and firmest in the region of the fracture; dura mater seat of chronic pachymeningitis, adherent to the pia mater over nearly the entire convex surface of the cerebrum. On freeing the brain from the membrane, a little pus oozed from the line of penetration; a large extravasation of blood was found on the left anterior central convolution. The pia mater was found opaque and thickened at the base, showing chronic basilar meningitis; punctate hemorrhages were found in the right hemisphere under the anterior and posterior central convolution. It was found that the nail had passed just to the right of the falx cerebri, and had entered into the corpus callosum about a sixth of an inch, and had not in any way injured any other part of the brain.—*Med. Press of West. N. Y.*, Aug., 1886.

Purcell (F. A.) on the Hypo-glossopiglotidean: A New Method for Excision of the Entire Tongue.—The anæsthetic having been administered, make a submental incision about a quarter

of an inch long in the middle line from the hyoid bone forward, and only through the skin; pass a whip-cord ligature through the raphe of the tongue, an inch from its tip, to act as a hold-fast for the tongue; the mouth is gagged open; introduce the left index finger well to the bottom of the right glosso-epiglottidean pouch, and here, so as to get well back to the root of the tongue, it is necessary to divide with scissors the anterior pillars of the fauces on both sides—viz., the palato-glossi and stylo-glossi muscles; clamp them with pressure-forceps to restrain any bleeding.

A Wood's hernia needle, which, being stout, long, well-curved, and with a handle, is employed, and being threaded with medium-sized whip-cord, is held in the right hand horizontally, its concavity turned upwards and inwards, so that the heel of the handle can be moved well round to the lobe of the left ear, enter the point at the submental wound, passing perpendicularly through the raphe of the myohyoid, the geneo-hyoid, and some of the fibres of the geneo-hyo-glossi muscles; now, by carrying the handle well back on the left side, the point of the needle will be directed so as to pass to the outside of the hyo-glossus muscle and lingual artery; feel now for the point of the needle with the left forefinger as the needle is pushed through, so as to enter the bottom of the side of the right glosso-epiglottidean pouch above the great cornu; hook up the loop of thread with the left finger and pull it well through and out of the mouth (if the needle should have been armed with the platinum wire instead of the whip-cord, hook it up and draw it out in the same way); withdraw the needle; the loop is retained in the pouch.

A similar procedure is carried out on the other side, by holding Wood's needle now in the left hand, and with the right forefinger in the left glosso-epiglottidean pouch; a loop is thus lodged in the pouch at either side.

Take the wire (be it the platinum wire of the galvanic, or the simple wire) and bend the ends into the hook and place the loops into them, and draw on both sides, when the ends of the wire will be drawn out at the supra-hyoid incision, made even and straightened, and loops detached. The centre of the wire now forms a loop and rests on the dorsum of the tongue. Before fixing up the *écraseur*, it is neces-

sary to place a guide for the wire to travel behind, and for this I again use Wood's needle, unarmed, with its concavity turned upwards and forward, so as to take a vertical sweep, entering the point at the supra-hyoid incision; feel for the point with the left forefinger, as it is pushed through the centre of the root of the tongue, in front of the epiglottis. Here it remains; guard its point by fixing a small cork on it; it is well to tie a piece of silk to the cork, in case it should fall off. The needle thus placed acts as a guide for the wire; no bleeding whatever occurs from the passages of the needle. The wire-loop is placed behind the guide-needle and made taut, its connections completed. The *écraseur* at work, the tongue is quickly cut through its root in a well-defined vertical plane. The guide needle withdrawn, this completes the first stage.

The second stage is carried out and completed by means of the scissors, snipping the anterior, lateral, and deep attachments; the tongue is released and withdrawn. No hemorrhage, as a rule, takes place, but if the battery works too quickly, and the wire made too hot, and some bleeding should show, a "stick" sponge pressed into the furrow following the wire will be found sufficient to restrain it. The linguals being included in the loop, are burnt through and sealed; if they should spurt, they can be secured on the face of the stump and tied. The ordinary simple wire *écraseur* may be adjusted in the same way as above described.

Further, the tongue can be removed in halves, or one half only, if necessary, by the same method. In removing the half, fix the wire loop from the epiglottidean pouch and the centre of the root around the diseased side, and then proceed to split the tongue down its centre, after the manner described by Mr. M. Baker; then, making taut the wire, fixing its connections, work it through the root, completing the rest with scissors as already described. —*Provinc. Med. Four.*, July 1, 1886.

Hall (R. J.) on Suppurative Peritonitis Due to Ulceration and Suppuration of the Vermiform Appendix—Laparotomy—Resection of the Vermiform Appendix—Toilette of the Peritonæum—Drainage—Recovery.—Thomas McK., aged seventeen, a native of Ireland, single, his business being that of a driver, has been under treat-

ment in Roosevelt Hospital, in the medical division, for phthisis and tubercular lymphadenitis (extensive consolidation of both apices, a large cavity on one side, very extensive cervical and axillary tubercular lymphadenitis, without suppuration; marked constitutional symptoms). He was discharged improved about one month before re-admission. He has had a right oblique inguinal hernia since childhood, always reducible, and causing no annoyance. He has never worn a truss.

The patient states that for two weeks before admission he had no passage of feces or flatus from the bowels. Three days before admission the hernia came down, and he could not reduce it. Since that time he has vomited almost constantly (vomiting, apparently, of greenish biliary matter, but not fecal). He has had constant severe pain over the whole abdomen, which has been extremely tender on pressure. The hernial sac has become swollen, red, intensely painful, and tender. The patient has been very ill, and has lost flesh and strength rapidly. Not having been under medical care until just before admission, further particulars (of temperature, etc.) are unknown. He states that on the day of admission unsuccessful attempts to reduce the hernia were made by a physician.

He was admitted into Roosevelt Hospital May 8, 1886, at 10.30 P.M. On admission, he was extremely emaciated and haggard, much prostrated, apparently in a condition of collapse. There was a rapid, feeble pulse (120 to 140), the extremities were cold, the respirations were thoracic, rapid, and shallow, the tongue was dry, and the teeth were covered with sordes. He vomited almost constantly a greenish fluid; there was tenderness over the whole abdomen, and he complained of intense general abdominal pain. The abdomen was not distended or tympanitic; if any thing, somewhat retracted. In the right scrotal and inguinal region was a large pear-shaped swelling, the smaller extremity extending into and distending the inguinal canal. The tumor was about eight inches in length, and at its lower extremity of about the size of two closed fists; the skin covering it was congested; it was semi-fluctuating on palpation, not tense or tympanitic. A diagnosis of probably strangulated hernia with gangrene and general peritonitis was made.

At 11 P.M., after shaving and thorough

disinfection of the parts, ether was administered and the operation was performed. An incision was made about three quarters of an inch in length, which was afterward extended downward to about six inches longitudinally over the neck of the hernia sac and down upon the scrotum. The structures were divided in a direction down to the sac, which was itself opened throughout the length of the incision. On opening the sac, about a pint of extremely fetid sero-pus was evacuated, having, however, no fecal odor. The whole cavity, which communicated by a large and free opening with the general peritoneal cavity, was covered by a greenish, putrid exudation of fibrin and pus. Behind the sac lay an immensely swollen and œdematous spermatic cord, and just outside the external abdominal ring, and attached to the posterior wall, was a solid, rounded mass, covered with the same greenish diphtheritic exudation; at first sight it appeared to be the empty sac of a hernia of the tunica vaginalis, distended by the exudation of a general suppurative peritonitis, due, perhaps, to a strangulated hernia reduced *en masse* or after gangrene had commenced, or to some other unknown cause. Pressure on the abdomen forced out from the peritoneal cavity, through the inguinal canal, fluid similar to that in the sac.

Further examination, after evacuation of the sac, showed, at the most dependent part of the scrotum, the tunica vaginalis moderately distended with fluid and containing an apparently normal testicle. The testicle-like structure was now recognized as the vermiform appendix, curled upon itself, and about two inches of its length, near its attachment to the cæcum, so thickened, either by a new growth, or a chronic inflammatory process (perhaps a tubercular gummatous infiltration), as to form a solid tumor of about the size of a testicle. The finger, passed through the inguinal canal, detected the cæcum and attached portion of the ileum, close to the internal ring, much thickened, as though having formed the contents of the hernia, intensely congested, bound together by recent exudation of pus and fibrin, but not gangrenous.

Near the base of the appendix, and on its cæcal aspect, a small oval perforation, about one fourth of an inch in length, was discovered. The appendix was ligated immediately above this point with strong

catgut, freed from its adhesions, and removed. One of these adhesions formed a long band, attached to the apex, like a continuation of the appendix itself, and extended upward into the peritoneal cavity. The cut extremity was disinfected with bichloride solution (1 to 1,000), but not sutured. The original incision was then prolonged upward about three inches, dividing all the structures of the abdominal wall, and giving free access to the peritoneal cavity. The hand and forearm were then introduced, exploring thoroughly the whole abdominal cavity, breaking up fresh adhesions, and emptying a number of large cavities, shut in by adhesions and containing the same putrid sero-pus, and a large amount was "scooped out" with the hand from the true pelvis. The whole intestinal tract seemed to be in the same inflamed condition as the cæcum and ileum, but no part was either much distended or collapsed. The toilette of the peritonæum was made as thoroughly as possible by the introduction of sponges wrung out dry from boro-salicylic solution and held in the hand. The cæcum and some coils of small intestine, which had been drawn out for inspection, were replaced; a pad of fifty-per-cent. iodoform gauze, about six inches long by two wide, and consisting of six or eight layers, was laid on the intestines, beneath the line of incision, and a rubber drain, eight inches long and about as thick as the forefinger, was passed among the coils of intestine diagonally upward toward the left hypochondriac region.

The abdominal incision was closed by three silver-wire sutures including the peritonæum and all the other structures, and by a superficial continuous catgut suture. The rubber drain was inserted in the incision at the most dependent portion of the hernial sac; the cavity was disinfected with a bichloride solution (1 to 1,000) and loosely packed with iodoform gauze. A dressing of the same was applied.

May 11th.—Dressings removed; drainage-tube and iodoform gauze in abdominal cavity also removed, as all discharge has ceased. The cavity of the hernial sac is covered with healthy granulations.

It is sufficient to say that from this time on all peritoneal symptoms disappeared, except on May 15th, when there was a rise of temperature with some abdominal pain, which was relieved by a one-grain opium pill. The wire sutures were removed May

16th, when there was complete primary union of the abdominal incision, except at the lower third which had been opened to remove the gauze.

The temperature and pulse continued to show some variations, on account of advanced pulmonary disease, but the patient gained flesh and strength every day. There remain now only a small, superficial granulating surface at the lower end of the abdominal incision, and a fistula, not yet healed, where the drainage-tube was introduced into the dependent portion of the sac, and cicatrization is progressing rapidly. The peritoneal cavity is, of course, entirely shut off.

While laparotomy for suppurative peritonitis has now been successfully performed so often that single cases scarcely attract attention, the number of successful cases for perforation is still extremely small. The subjoined literature includes, I think, references to all the recorded cases:

"Gunshot Wound of the Intestines treated successfully by Laparotomy with Suture of the Intestines," W. T. Bull, *New York Medical Journal*, Feb. 14, 1885, p. 184; "Ueber Laparotomie bei Magen- und Darmperforation," J. Mikulicz, *Volkmann's Sammlung klin. Vorträge*, No. 262, 1885; "Ein Fall von Perforationsperitonitis—Laparotomie—Tod nach 9 Wochen," M. Oberst, *Centralbl. f. Chir.*, No. 20, 1885, p. 345; "Fall von Ileus am siebenten Tag geheilt," Köhler, *Charité Annalen*, 10 Jahrg., p. 486; ref. in *Centralbl. f. Chir.*, No. 41, 1885, p. 717; "Suppuration around the Vermiform Appendix treated by Abdominal Incision," Barlow and Godlee, *Med. Times and Gaz.*, Dec. 19, 1885; ref. in *Centralbl. f. Chir.*, No. 8, 1886, p. 135; editorial on "Perforation of the Stomach and Intestines," *Annals of Surgery*, May, 1886, p. 386.

In a somewhat hasty search I have been unable to find any case of perforative peritonitis due to ulceration of the appendix successfully treated by laparotomy and resection of the appendix itself.—*N. Y. Med. Jour.*, June 12, 1886.

O'Hara (M.) on Extra-uterine Pregnancy with Rupture of the Fallopian Tube; Laparotomy on the Thirty-third Day; Recovery.—The patient had been in good health until seized, two hours before, with severe rectal tenesmus, agonizing pains in the pelvis, pains in both flanks, and extending down the right

leg and arm. On account of the tenesmus she thought she was going to have a stool, and rushed to the water-closet, but, no relief following, she rushed to her room and fainted: she was carried to bed, rectal injections were given by those present, but no movement followed, and opiates were given for the relief of the pain. When he saw her she was in collapse, almost pulseless, respiration shallow, and extremities cold. The whole surface was bedewed with a cold death-sweat. She could not lie on her left side or back, but reclined doubled upon her right side, and would jump up occasionally with exclamations of agony. She was thirty years of age and the mother of three healthy children, the youngest being one year old; she was still nursing it. She had never been sick, and had menstruated regularly. One menstrual period had been missed about a week before the accident, and she considered herself pregnant.

The diagnosis was internal hemorrhage, due to rupture of the Fallopian tube at the fifth week of pregnancy. Opiates and stimulants were used.

Three weeks after the first attack a terrible flooding occurred; it lasted for an hour, and slight hemorrhage continued afterwards. There was decidua in this discharge. At the same time the suprapubic tenderness extended towards the right and slightly increased on the left side, extending upward as high as the umbilicus. Chills and a rise of temperature to 101° , vomiting, constant sharp, cutting pains, and emaciation, with signs of softening along the crest of the ileum, and general appearances of blood-poisoning occurred, and surgical interference was strongly urged as the only means of averting death. On the thirty-third day Dr. Parish operated, and he prepared the following report of the operation:

I first cut through the linea alba, just below the umbilicus, making an incision long enough to admit two fingers. The peritoneal cavity was found empty and the peritoneum was quite normal, though somewhat congested. The exploring finger showed that the mass was external to the peritoneum, and extended upward from the left half of the pelvis to a level with the umbilicus. The broad ligament had become obliterated by separation of its layers. It was not thought advisable to explore with the finger with the view of

determining the condition of uterus, ovaries, and tubes. The peritoneal covering of the abnormal accumulation was evidently thin and tense, so that a careful exploration as to the condition of the uterine appendages would have endangered its rupture and the probable development of general peritonitis. It would have been an easy matter to have stitched the parietal wall of the tumor to the wall of the median incision and to have then, by incision, emptied the mass of its contents. But such a procedure would have been attended with risk of leakage of the offensive fluid into the peritoneal cavity. To avoid this risk, I now made another incision along the line of original election, *i. e.*, above the outer border of Poupart's ligament, and readily reached the mass cavity without wounding the peritoneum. This incision was made long enough to admit two fingers. About one quart of blood coagula, fluid blood, and pus escaped. The fibrinous masses were removed and all attached portions were scraped off with the fingers. The curette was avoided, chiefly because of the thin upper wall. The cavity was washed out with antiseptic fluid.

Twenty-four days after the operation, the patient was permitted to sit up, and while cheerfully singing, felt blood streaming down her legs from the wound; clots passed also from the uterus and rectum. She felt the rectal tenesmus and pains in right lower extremity similar to those felt at the first seizure. Much blood was lost. A similar bleeding occurred three days later, and as life was endangered, it was thought necessary to give ether and explore the cavity. It was found that the tissues had been dissected up by accumulated blood and pus until the cavity extended down the side and front of the uterus, and communicated with the rectum at the upper end. The cavity was thoroughly scraped with a curette, and was then packed with alum sponges after disinfection with Platt's chlorides. The patient reacted well. When the wound was injected, nothing came from the rectum, but an injection into the rectum came out of the wound, and there was a fecal odor about the wound. Next day the sponges were removed, and muslin tampons wet with phenol sodique were introduced. The packing was changed twice each day. Discharges of offensive fecal matter and a small gall-stone escaped from the wound.

On February 15, nearly four months after the operation, the patient is noted as doing uniformly well; the wound is closing; the exudation about the uterus and vagina is disappearing, and the odor and elimination of gas while dressing the wound had disappeared.

May 1st.—Patient has gained greatly in flesh and, presents the appearance of perfect health. A very small short sinus alone remains. The communication with the bowel has closed entirely. Menstruation occurs normally, and there is no bleeding at any time from the wound.—*Four. Am. Med. Ass'n*, July 31, 1886.

Mundé (P. F.) on Laparotomy in Europe.—There seems to me to be two main reasons why European operators excel us, and these are, not in their superior surgical dexterity, but:

1. Because in Europe laparotomies are more concentrated, fewer operators perform proportionally more operations, and therefore each operator acquires a greater dexterity and a more varied experience in handling exceptionally difficult cases—that is, greater confidence.

This greater concentration of cases, of course, gives the operator a larger variety for selection, and obviates the tendency natural to all surgeons to operate whenever there is a fair prospect of success. An operator with few opportunities will thus be likely to take more chances than one who is overburdened with material.

2. The majority of European laparotomists, chiefly those who are clinical professors, have at their disposal operating-rooms, clinics, and wards fitted up with every facility and with every modern contrivance for guarding against infection, and are assisted by a staff of trained aides, whom long experience renders familiar with every detail of the operation and the after-treatment.

The number of these assistants and nurses is generally as small as the operation can be performed with, the operator himself doing most of the handling of instruments and sponging. Absolute cleanliness, with or without antiseptics, insures reasonable safety from infection.

In consequence, a system is observed which renders errors, both of commission and omission, rare, and reduces the admission of noxious and septic influences from without to a minimum.

That the *morale* of the patients is eleva-

ted by this thorough system is evident, and this is in itself an important factor to success.

The length of the abdominal incision does not appear to be important, since German surgeons, with long incisions, and English operators, with short incisions, have equally good results.

Whether climate or the constitutions of the different races exercise any influence on the result, *pro* or *con*, must still remain undecided.

If European women are more robust than ours, certainly this can apply only to the German peasantry, whose work in the fields gives them powers of endurance not possessed by the majority of our house-bred women. In the middle and upper classes, the constitutions appear about the same.

Hence I can arrive at no other conclusion than that by a careful study and imitation of, and perchance eventually an improvement on the methods of the most successful foreign operators, we must seek to equal or excel them in course of time. I trust that this brief and incomplete, because discursive, report of some of these methods may aid those of our operators who are not satisfied with their results in improving them.—*Am. Four. Obstet.*, etc., Sept., 1886.

Carpenter (J. G.) on Ulceration of the Sigmoid Flexure.—J., aged twenty years, of good family history, had enjoyed good health until August, 1885, when he suffered an attack of acute dysentery under which he was confined to bed one week; at this time the pain, tenesmus, and bloody discharges had in a great measure ceased. Being of industrious habits and eager to make money, the patient concluded to resume work and wear out his ailment, but one or two weeks of active life convinced him of his error.

From September 1st to December the patient had been treated for chronic dysentery by his physician. In December I was called to see the case and found present the following conditions:

The patient was pale, weak, and anæmic; the tongue had a yellowish-white coat; the bowels were tympanitic and painful in the left iliac region, especially on pressure. Dysentery had been present since August, the stools averaging from three to six per day, and containing a little muco-pus with some blood. Each stool was preceded by

pain in the tract of the sigmoid flexure. The pulse was ninety-six; temperature and respiration normal. Digital and ocular examination found the anus and rectum in a normal condition, though the latter contained an abundance of scybalæ, broken-down pus, epithelium, and blood. A rectal injection of warm salt and water, as hot as could be borne, half a gallon in quantity, was given, the trunk being inverted at an angle of from seventy to eighty degrees with the bed. The object of this procedure was to wash out the descending colon, sigmoid flexure, and rectum. The injection was retained for twenty minutes, when the patient resumed the sitting posture and passed it. The bowel having been cleansed, the patient was placed on his left side and the trunk again inverted to an angle of seventy to eighty degrees, whereupon the abdominal and pelvic contents gravitated toward the diaphragm. Sims' speculum was now inserted into the anus, which being dilated and the nates widely separated, the patient was directed to make prolonged expirations. Under these manœuvres the rectum became inflated, the distension being so great as to temporarily efface the folds of its mucous lining. An electric lamp was now introduced into the rectum, and an ulcer, one inch by two, was seen in the sigmoid flexure, ten inches by measurement from the anus. This was swabbed with absorbent cotton, and to it nitrate of silver, grs. xl to water ℥j, was applied. During the next six days, injections of water, as hot as could be borne, were given night and morning, with the trunk inverted but inclined toward the left side. These were for cleansing and soothing effects. In each instance after the first injection had passed, another of tannin, grs. x, laudanum, gtts. xx, was administered for its astringent and anodyne effects, and to give rest to the ulcerated bowel. These injections were given invariably with the trunk inverted. Applications of nitrate of silver, grs. lx to water ℥i, were made every six or eight days, the injections being continued during the intervals until restoration was complete.

All subsequent ocular examinations were made with reflected light from the head mirror of a laryngoscope, sometimes by the sun, sometimes by the coal-oil lamp, both of which illuminated the ulcerated surface and lining of sigmoid flexure and rectum sufficiently for all practical purposes.

The constitutional treatment consisted of liquid nutritious food, rest in a recumbent posture, and massage night and morning.—*Am. Pract. and News*, Aug. 21, 1886.

Kelsey (C. B.) on the Treatment of Hemorrhoids.—After all has been said, I can only add that the most satisfactory cases of hemorrhoids, of moderate or great severity, which come to my notice, are those in which the patient says at the outset, "Cure me as you think best." In them I use the clamp and cautery. They seldom cause a moment's uneasiness, and the result is always very gratifying.—*N. Y. Med. Record*, Aug. 7, 1886.

Kelsey (C. B.) on Lupus of Ano-Vulvar Region.—The patient was fifty-five years of age, and had had five children and several miscarriages, none of them due, however, to syphilis. The most careful inquiry failed to bring out either a syphilitic or a scrofulous history. She seemed in good general health, suffered little, and was able to do a good day's work. Two years before she had suffered from some trouble of the rectum, and said that she was operated upon for piles without relief. She had, in fact, grown steadily worse, and a few months ago was again operated upon for recto-vaginal fistula. On examination, the rectum and vagina were found converted into one common cavity. The only remnant of perinæum was a slight bridge of tissue of about the thickness of a quill, running transversely from the lower part of one labium to the other. This being cut, left a large ulcerated cavity into which both rectum and vagina ended. The sphincters had both been entirely destroyed, and the edges of the cavity were surrounded by fleshy masses of hypertrophied skin almost sufficient to conceal the true relations of the parts.

The ulceration, though of great superficial extent, did not present any marked cancerous hardness of the base. The edges were hard and infiltrated, slightly raised, but not undermined, and the ulcerating surface was covered with a sanious discharge, and but little pus. There were no enlarged glands, no constitutional infection or cachexia, and no apparent attempts at cicatrization. Defecation was painless and occurred once a day. Although having no control over the passages, she generally, except in case of diarrhœa, had sufficient premonition of the approach of a

passage to enable her to reach the closet in safety.—*N. Y. Med. Jour.*, Aug. 7, 1886.

Schatz on Ulcers of the Bladder.—

A woman, otherwise healthy, had very great dysuria during typhoid fever. Treatment by irrigation had no effect. After several weeks the bladder was palpated, and found velvety to the touch, except at the anterior wall, a short distance above the symphysis, where there was a spot, the size of a dollar, which differed from the remainder of the internal surface in seeming to be mounted on a firm wall. It was not depressed, but had an even surface which felt like dampened glass. There was no swelling around it. There was some strangury; the urine contained blood and pus. Further treatment at the time proved ineffectual. Six months later, Dr. S. saw a similar case in a young woman. There was vesical tenesmus, together with the discharge of some drops of blood. On palpating the bladder, the conditions found were as in the former case, only the ulcer was seated more postero-superiorly, and was about five centimetres in diameter. Examination of the pus gave no information. The patient returned after several months. Irrigations produced no improvement. Meantime the ulcer had enlarged to thrice its former dimensions, its lower limit reaching almost to the trigonum of Lieutard. The question was, whether improvement could be obtained by a partial resection of the bladder. This operation was performed, similar to the high lithotomy. The incision was made immediately above the symphysis, and the bladder lifted up. After being opened, the ulcer became visible; the rest of the bladder was intact. The ulcer was seized from behind with a clamp-forceps; the mass within the grasp of the instrument was very thick, but it was ligated and cut off. The threads were allowed to remain, so as to let them hang out of the fistula. The vesical incision was stitched with catgut, the lower portion of the vesical and abdominal wounds left open. Through this fistula were passed the threads and a drainage-tube extending through the urethra. By about the twentieth day the suture was so loose that it could be easily pulled out of the fistula; the same remark applies to the drainage-tube. After three hours, the patient evacuated one quarter litre of urine without any difficulty. The excised piece looked like a granulating ulcer; it contained tubercles, but no

bacilli. After several months, during which she had no purulent urine, the patient returned with the remark that her urine was again turbid. It was always acid. The case, then, was a tubercular ulcer of the bladder.—*Am. Jour. Obstetrics*, etc., Sept., 1886.

Stone (E. R.) on Extravasation of Urine Following Repeated Aspiration of the Bladder.—

More than three years ago I was called to J. W., æt. sixty-seven, who was suffering with retention of urine due to prostatic enlargement. The patient was instructed in the use of the catheter; and efforts to reach the bladder were always successful until the night of September 17, 1885, when he was found suffering again with retention. The bladder was aspirated with a medium-sized instrument, and about one pint of urine withdrawn. By night the re-accumulation was distressing the patient again, and the aspiration was repeated at 7 P.M., and again at 8.10 A.M. next day. Urine withdrawn amounted to rather more than one pint for the two operations, was clear, but rather dark in color. The first puncture was in the middle line, a short distance above the pubes, and the second and third were close to the first. A circle with a radius of one-fourth inch would have included them all.

September 18th (day after first aspiration), at 4 P.M., I was informed that the patient felt better, as some urine was passing. Examination showed that no urine was escaping from the urethra, but it was welling up drop by drop from two of the three punctures, having displaced the adhesive plaster covering them. The bladder could be felt to extend almost to the umbilicus. The aspirator was used again, and, although the puncture was made in the same neighborhood as before, and the trocar appeared to enter the organ, no fluid could be withdrawn except a small amount of bloody serum.

Dr. Keen was called again, and the patient was given ether preparatory to the operation of cystotomy. Under the influence of the anæsthetic, however, Dr. Keen succeeded in passing a silver catheter with prostatic curve, and more than one pint of urine escaped. The bladder was thoroughly washed with warm water, and the catheter secured in place. Above the pubes a free incision was made through the skin and subcutaneous fat.

The patient did well until the third day,

when symptoms of sloughing of the deep cellular tissue became prominent. An offensive discharge began from the wound, and the deep tissues could be seen to be dead and sloughing. At the same time there was moderate fever. The catheter was left *in situ* for four days, and the bladder was frequently washed (three times daily) with a warm solution of borax. After the removal of the catheter there was no further trouble in introducing it, which was done four times in the twenty-four hours, and the bladder washed as before. The sloughing of the deep connective tissue became quite extensive, extending beneath the muscles on both sides almost to the iliac crest, and for a considerable distance above the incision. The sloughing tissue was drawn out and removed as fast as it became loosened, and carbolic-acid solution was injected through a soft catheter passed in various directions under the undermined structures. Patient's strength failed rapidly under fever and diarrhœa due to septicæmia, but he rallied as the abscess became clear of sloughing tissue and began to heal; but he sank and died of exhaustion, October 11th, twenty-four days after the extravasation of urine occurred. The wound had almost healed, and, although he had not been able to void his urine, the bladder remained free from catarrhal complication. No post-mortem.—*Phila. Med. Times*, Sept. 4, 1886.

Belfield (W. T.) on Digital Exploration of the Bladder.—During the past eighteen months it has been my lot to make a digital exploration of the bladder, by perineal urethrotomy, in nineteen adult males. In seven cases the exploration was incidental to the performance of membranous urethrotomy for stricture and afforded no particular information; in the remaining twelve cases the operation was made as a means either of diagnosis or of treatment, or of both.

As essential preliminaries to a diagnostic exploration of the bladder, I would adduce two considerations:

1. It should not be performed as a diagnostic measure until it is reasonably certain that the seat of the difficulty is in the bladder, or until all other and less radical diagnostic means, including the microscope, have been exhausted; otherwise it may yield only disappointment and regret to both surgeon and patient. For it must be remembered that an irritable condition of

the bladder can be produced by causes without as well as within this viscus, such as stricture of the anterior urethra, tuberculosis or calculi of the kidney-pelvis, etc. In such cases the morbid symptoms may be exhibited chiefly or exclusively by the bladder, while the lesion lies chiefly or exclusively elsewhere. As examples I would mention my own case of tuberculosis, and the two cases of exploration of the bladder which I have seen performed by other surgeons; in both of these the operation was ill-considered and fruitless, since in each the lesion evidently lay in the renal pelvis.

2. The operation should never be performed until the bladder has been accustomed to complete evacuation, by catheter or otherwise. If in consequence of a tight stricture or prostatic obstruction, the bladder is much hypertrophied, membranous urethrotomy is dangerous, not from a probability of urinary extravasation, but simply because a cysto-pyelitis of more or less gravity—possibly even anuria—usually follows the sudden removal of the accustomed high pressure in the bladder and kidney pelvis. Examples are found not only in my own fatal case of anuria, but also unfortunately in the daily introduction of catheters for retention, division of tight strictures, lithotomies, etc. Therefore, before the bladder is explored in a case with tight stricture, prostatic enlargement, or other cause of vesical hypertrophy, the bladder should be gradually accustomed, in the course of weeks, to complete evacuation; the stricture should be enlarged; or the prostatic obstruction should be overcome by the habitual use of the catheter until all residual urine is withdrawn. Then, and *not till* then, can the surgeon rest assured that digital exploration of the bladder from the membranous urethra, whether it afford much or little benefit, will at least be safe and devoid of injury.—*Four. Am. Med. Ass'n*, Sept. 4, 1886.

Helm (S.) on a Subcutaneous Method of Treatment of Bubo.—His method consists in injecting the suppurating gland, after the pus has been withdrawn, a solution of carbolic acid to wash out the cavity, and then injecting and allowing to remain, an emulsion of iodol in pure oleic acid. The injecting instrument consists of a barrel holding two drams, which is mounted on either side by two rings for the fore and middle fingers, and a ring in the end of the piston for the thumb. Three

needles, two different sizes of aspirator needles, and one a canula with trocar. To these is attached the centre joint, in which is a stopcock, the opposite extremity of which is attached by a smooth joint to the barrel.

In twenty-three cases the treatment was successful in all but the nineteenth, this patient having gone on a protracted spree following the operation. The advantages of the operation are that when there are two or more suppurating buboes in the same chain of lymphatics, the second or third appears further away than the initial one; by placing the first glandular abscess in a perfectly septic condition you prevent the inflammation of neighboring glands; secondly, there is no cicatrix remaining.—*Cincinnati Lancet-Clinic*, Aug. 28, 1886.

DISEASES OF THE EYE.

Dickinson (W.) on Pemphigus of the Conjunctiva.—Mrs. P., sixty-two years of age, is presbyopic, and has worn glasses $\frac{1}{8}$, and stronger, for five years. She says: "Two years since, while in the country, my eyes became severely inflamed, but they recovered in five or six weeks. The left eye was first affected, was painful, and so continued for some time. The disease seemed to localize itself on the inner side of the left eye-ball, and presented a very large water blister. After the water was discharged there remained a large red spot. Simultaneously with this blister there appeared similar blisters on both upper lids. To these I applied flax-seed poultices, and after a few days they disappeared, but considerable pain continued. In April, 1885, I consulted an oculist of this town, being then unable to bear strong light or to look up. I then had large blisters on the upper lids and also on the margins of the lids. For two months I had several successions of blisters and recoveries, and the intense redness of the ball partially subsided. At this time, also, the lower lids began to turn inwards and the lashes to touch and irritate the eye."

She consulted me first, June 25th. The upper lids then drooped, and she was suffering from photophobia, entropion, and trichiasis, not only from the normal cilia, but from abnormal ones which to a great number had developed along the inner border of the lower lids. Both upper lids

were thickened and indurated, rendering eversion difficult and painful. However, there was but little general conjunctivitis of the upper lids, but the vessels of the entire subconjunctival tissue of the eyeball were deeply engorged with blood, from which by pressure through the lid, it could be expressed, but it speedily returned.

A striking and very observable feature was a broad, fibrous band, striated, of whitish color, evidently cicatricial in character, resembling a pterygium, lacking the red color, occupying the inner aspect of the left globe, extending from the inner canthus nearly to the cornea. It presented the same appearance as is seen after the contact of some powerful escharotic. On inquiry she stated that nothing of the kind had ever happened to her. This was unquestionably the sequel of the large blister (bleb) from which she had for so long a time suffered some months before, and which was pathognomonic of pemphigus. The lower conjunctival sac was much diminished in depth and extent.

Immediately after this visit the patient went to the country, and her next visit was on August 18th. The eyes and lids were in much the same condition as when last seen, but more aggravated, especially the entropion and consequently the photophobia. The punctum of the left lower lid being contracted, and as was probable, also the lachrymal duct, I passed a Bowman's probe with benefit. In the early weeks of treatment I pulled out the abnormal cilia, and also those of the normal series which were most offending. In consequence of the progressive contraction of the conjunctiva, both palpebral and ocular, the inversion of the lower lid continued to increase. To resist this tendency I removed from the integument of the lid an oval piece, which for a short time restored completely the lid, and at the same time the normal cilia, to their normal position. About November 1st, for the first time since she came under my observation, blebs appeared on the integument of the upper lids, covering the entire surface. The general integument was nowhere affected, nor had blebs as yet attacked the globe.

I now destroyed the bulbs of the abnormal cilia by electrolysis, and also those of the normal that became incurved and irritated the globe. In this, with constitutional treatment, I persisted till December 1st. At this time a small vesicle invaded

the upper part of the conjunctiva of the right globe just above the corneo-scleral junction, which later assumed the conditions of an ulcer, and being treated as such kindly healed. Soon after a large bleb developed in the lower fornix of the left eye. This in a few days passed through the various stages and ultimately healed, and left a cicatricial contracting surface. Directly afterwards a bleb occurred on the conjunctiva of the right eye, which had the same history. March 1st, I observed a large bleb on the conjunctiva of the left globe occupying the upper and outer quadrant, extending to and invading the corneal edge. Simultaneously a bleb of similar dimensions, and in corresponding location, attacked the right eye. This was the last visit made by the patient; reasons of discontinuance unknown. Gratitude and satisfaction had always been expressed, notwithstanding I had frequently informed her that the disease was refractory and oft-times intractable. Vision, as the result of pemphigus, was intact, except as embarrassed by trichiasis and lachrymation.

Treatment.—Generous diet and tonic regimen from the first was persistently pursued. Quinine and iron, singly and combined, were administered in full doses, and during the last three months arsenic was added. Local treatment by collyria of ac. boracici, and to the blebs local applications of mild solutions of arg. nit. and ox. hydrarg. flav. (amorph). Galvanism was also employed through the closed lid, one rheophore being applied to the nucha or held in the hand, and during the last month I applied it directly to the conjunctiva, it having been first rendered insensible by instillations of cocaine. By this agent I hoped to re-inforce the vaso-motor factor of the great sympathetic, which had become parietic, and which gave rise to the chronic congestion, the extravasation of serum, and the resulting formation of blebs. Eserine was also at periods instilled. Incipient cataract was present in both eyes.—*St. Louis Cour. Med.*, Aug., 1886.

De Beck (D.) on Foreign Bodies in the Vitreous Humor.—An eye with a foreign body in the vitreous is almost invariably lost, as far as regards vision.

Such an eye will remain subject to attacks of inflammation; and is almost certain at some time or other to produce sympathetic ophthalmia.

When the body can be located an at-

tempt at extraction may possibly be successful.

When the body cannot be located, no attempt at extraction is at all permissible.

Even after extraction, neither the safety of the injured eye nor of the sound eye is completely assured.

This is equally true of magnet-extractions.

No substitute for enucleation will assure this, unless possibly evisceration will prove to do so, subject to the test of experience.

The danger of enucleation can be reduced to the minimum by the strictest antiseptic precautions.

It follows then that the ONLY PERFECTLY SAFE AND CERTAIN TREATMENT IN THESE CASES IS THE PREVENTIVE ENUCLEATION OF THE INJURED AND LOST EYE, IN THE INTEREST OF THE OTHER AND SOUND ONE.—*Cincinnati Lancet-Clinic*, Aug. 28, 1886.

Crushing the Granulations in Trachoma.—A recent number of the *Lancet*, Aug. 14th, has an article on the above subject, and seems to credit the discovery of the operation to a Dr. Wicherkiewicz. As it does not give any dates, the truth of this claim is of course undetermined.

Dr. P. D. Keyser, of Philadelphia, read a paper on this subject in May, 1883, which, unfortunately, was buried in the Transactions of the Medical Society of the State of Pennsylvania for 1883.

Andrews (J. A.) on Purulent Infection and Cleansing of Instruments.—Dr. Andrews has frequently pricked the cornea and applied the staphylococcus pyogenes aureus, and had repeatedly seen recovery follow without suppuration or inflammation. Mere contact of the microbe with the wound is not always sufficient to produce suppuration, especially in the case of the cornea, where the discharge is liable to be washed off. Where the material has been introduced into the wound and kept there for a short time, he had never seen a failure.

In the cleaning of instruments, he used what he termed an aseptic fluid. It consists of clean water boiled some time. The principal value of antiseptic solutions in hospitals is that they furnish something one is sure is clean. Water is not always clean. He does not use boiling water in washing instruments; the water is boiled to render it aseptic.—*Medical Record*, July 31, 1886.

Hannover (A.) on a Spongy Formation between the Sclerotic and Choroid Coat in New-Born Children.

—Amongst the great number of eyes of new-born children which I have examined, I have four times found a formation between the sclerotic and choroid, which, as far as I know, has not been noticed hitherto. I consider this formation to be spongy, on account of the structure it presented to view when the eyes were hardened in dilute chromic acid. It consisted then of small areolæ, which were elongated, flat, generally parallel to the concavity of the eye, or irregular and angular like those of the spongy substance of the penis. In different subjects this layer between the sclerotic and choroid varied from 0.5 mm. to 1.5 mm.; it was thickest at the equator of the eye, and became thinner at the back part of the eye near the entrance of the optic nerve, and likewise at the fore part outside the corpus ciliare. The membranes which formed the framework were semi-transparent and firmly adherent to the sclerotic and choroid, so that they could not be removed without injury. Under the microscope they appeared as membranes of uniform transparent structure or covered with molecules; the lines on them were caused by folds. There was, besides, a great number of round or oval clear cells, with sharp linear contours, but without any contents; even the presence of a nucleus was doubtful, although there were many bodies of their appearance on the membranes, and some of them may have had their place in the interior of the cells. There was no connective tissue; the cells may possibly have belonged to the lamina supra-choroidea. The circumstance that the formation was always found to have the same shape and extension in both the eyes of the child made it very probable that one and the same cause had prevailed in producing it. As such a one we may most likely presume an increased secretion of the serous or rather half-gelatinous substance, which under ordinary circumstances always exists between the sclerotic and the choroid of the new-born child. The adhesion of this half-gelatinous substance, wherein the ciliary nerves and vessels rest, is stronger with the sclerotic than with the choroid; it is stronger in the posterior part than in the anterior, and stronger in the inner than on the outer half of the eye. When examined with the microscope, this

substance is seen to be composed of a uniform basis without any structure, intermixed with a great number of oval, angular, or pointed nuclei of different size, from which also fibres may proceed. There seems, besides, to be a faint indication of connective tissue in bundles which cross each other, and of some elastic fibres, but these may belong to the lamina supra-choroidea. When an eye of a new-born child is kept in dilute chromic acid for some days, the half-gelatinous substance becomes more like a fine membrane, but the microscopical relations remain the same as in the fresh state of the eyes. This spongy substance which I have mentioned has nothing to do with the lamina fusca on the inside of the sclerotica. The lamina fusca does not form a complete membrane, but consists only of bundles of connective tissue interwoven with irregular pigmentary cells, and connected with the lamina supra-choroidea by strings.

It is most convenient for the examination of the relations between the sclerotic and the choroid to wash off all the pigment from the inside of the latter, so that this coat appears almost white and without color, except in the neighborhood of the entrance of the optic nerve, where a light red-brown color remains, especially extending outwards (tapetum?), caused by a brown sprinkling, but not by regular pigmentary cells. The posterior part of the choroid is not yet provided with pigment, but has only a light-brown color—hence the reddish color of the pupil in the new-born child. A transverse oval is formed with an eccentric white spot for the entrance of the optic nerve. On the contrary, the place of the foramen cæcum is black, but not so dark as the rest of the choroid. The pigmentation proceeds both from the foramen cæcum and from the periphery of the oval, beginning in the foremost part of the eye and extending backwards.

The first eyes in which I discovered this formation were those of a child of between one and two years of age. The dimensions of each eye were as follows:—Vertical diameter 19 mm., transverse diameter 20 mm., antero-posterior diameter 18.5 mm. (the eyes were compressed from before backwards), diameter of the base of the cornea 10 mm. and 11.5 mm. All other parts of the eyes were perfectly normal, the radial structure of the vitreous body, like the structure of an orange, being very

distinct. Nothing is known about the power of sight of the eyes.

When I had communicated the results of my observations, Dr. Paul Haensell of Paris suggested the opinion that the spongy layer between the sclerotic and the choroid might be due to an arrest of development. This hint may lead to further investigations of the eyes of the human fœtus at different ages before birth, kept for some time in dilute chromic acid in order to preserve the shape of the eyes and the possibly existing space between the sclerotic and the choroid.—*Lancet*, Aug. 14, 1886.

DISEASES OF WOMEN.

Noeggerath (E.)—A Puerperal Fever Microbe and its Habita in New York.—The writer introduced his subject by describing at length a case of puerperal fever of a remittent type, which occurred in a patient whose confinement was effected under the most stringent antiseptic precautions. Her surroundings were considered to be favorable in every respect. There was a dressing-closet communicating with the lying-in chamber; in order to eliminate every source of infection, the writer plugged up all the holes in the stationary basin.

A few days after her confinement (which was perfectly normal) the patient had a chill, and developed a high temperature, which was controlled by appropriate treatment. There was a foul discharge from the uterus, which ceased after the administration of injections. From the symptoms, the writer inferred that the condition in this case was *not septicemia* but *sapremia*. The question was, What was its origin? On examining microscopically the lochial discharge and a decomposed clot that had been expelled from the uterine cavity, he found a bacterium with certain very marked characteristics. This appeared as two oblong bodies separated by a constriction. On removing the rubber corks from the overflow-pipe of the basin, and examining the scrapings from their under surfaces, the identical microbes were discovered, a direct relation being thus established between the emanations from the pipes and the sapremic condition of the patient. Now, as the basin had been sealed up before the labor began, and no discharges from the patient, or, in fact, fluids of any kind had been poured

into it, the inference was that the bacteria must have been present in the air contained within the pipes long before they entered the genital tract of the puerperal woman.

The writer did not pretend to be able to trace the sequence, but he thought that the practical deduction was sufficiently evident, viz.: that we ought never to select as a lying-in room any chamber that communicated with a bath-room or dressing-closet, because although the plumbing might be perfect from the standpoint of the sanitary engineer, this was no security against the presence of dangerous germs.—*Am. Jour. Obstetrics*, etc., April and May, 1886.

Long (B. G.) on the Prevention of Puerperal Fever.—Puerperal fever, in many instances, is preventible.

Its causes are autogenetic and heterogenetic: the former cause excluded by securing a tranquil state of mind in the patient, with rest, sleep, and tonic contraction of the uterus, after the secundines are expelled; the latter by cleanliness, pure air, antiseptic measures, and the exclusion of all infectious matter from whatever source.

A relationship exists between puerperal fever and scarlatina, diphtheria, erysipelas, etc.; and, although some parturients are not susceptible to these poisons, the greatest care should be exercised by physicians to prevent infection of those who are susceptible.

Credé's method of placenta delivery, properly executed, is the safest and best.

Intra-uterine injections as a routine practice are dangerous, and vaginal douches are not essential, unless lochia are markedly offensive.

The antiseptic pads used and recommended by Dr. Garrigues are harmless, and in hospitals and during epidemics of contagious diseases may be of great benefit.—*Med. Press West. N. Y.*, Sept., 1886.

Gillette (W. R.) on Pregnancy Complicated by Aneurism of the Abdominal Aorta—Normal Delivery.—

The patient had previously borne two children. Three years before she went to Lima (Peru), and while there it was discovered that she had an aneurism of the abdominal aorta. She became pregnant. Her menstruation had ceased three months before; she had severe pain in the abdomen, and there was evidence of extensive disturbance of the circulation. Dr. Gillette found that there was no doubt about the

existence of the aneurism, and that it was sufficiently large to impart a decided impulse to the uterus. As he declined to induce premature labor without a consultation, the lady applied to an abortionist, who tried to induce labor, but failed. Pregnancy progressed to the fifth month, when the distressing symptoms began to be relieved; the pain diminished, and the heart's action became more regular. Improvement continued, and the painful symptoms referable to the aneurism disappeared entirely. The labor was perfectly normal. In order to eliminate every disturbing element, the patient was kept under chloroform during the first stage, and delivery was effected rapidly and easily with forceps. After delivery the aneurismal symptoms returned, and were now present, though much modified. It really seemed as if the growth of the aneurism had been retarded by uterogestation.—*Am. Four. Obstetrics*, Feb., 1886.

Strother (W. J.) on Fatty Placenta Causing Abortive Hemorrhage—Treatment.—Mrs. H., aged thirty years, married seven years, has had six to seven miscarriages, generally happening from three to five months, beginning about the second month with hemorrhage, which returned every few days until foetus was expelled. She had a miscarriage about fifteen months ago, at which I attended. Remembering the case, (as reported in a medical journal) of miscarriage being due to fatty placenta, and that muriated tincture of iron and chlorate of potash had been used successfully in the succeeding pregnancy, I examined the placenta and found it almost a mass of fat. At the beginning of her next pregnancy I gave the following mixture almost daily until she was delivered of a healthy male child at full term, and she had only a slight show of hemorrhage, which was about the third month.

Tr. ferri chl.	3 iij.
Potass. chlor.	3 iij.
Glycerini	j.
Aquæ	3 v.

M. SIG.—Teaspoonful *ter die*.

—*Virg. Med. Mo.*, Sept., 1886.

Booth (S. D.) On the Dry Treatment of Corporeal Endometritis.—With his "Endometric Duster" or uterine dry syringe the author has treated many pathological conditions of the uterus and vagina by local applications of various powders. The apparatus is a modification

of the ordinary blower used with insect powders. The clinical use of the method is set forth by the writer as follows:

There is a form of eruptive vaginitis in which the whole vaginal mucous membrane, including the lower portion of the cervix uteri, is covered with little pimples. This form of trouble is generally attended with a most provoking and ceaseless itching of the vulva, and the ordinary remedies seem to have scarcely any tendency to modify its harassing existence. I have known a single dusting over of the upper part of the vagina with a mixture of one part of nitrate of silver and twelve of bismuth, or bismuth alone, to the internal portion of the labia, to stop the itching and burning; and a second application made in like manner to cure the case entirely. I have treated a few cases of gonorrhœa with the powder thrower, and with marked success. In one case I used salicylic acid and morphia. In a small number of cases I have used bismuth, 30 parts, argenti nitras, 1 part, morphia sulphate, 2 parts, and these cases recovered more rapidly than I have known the disease to do under any other treatment; however, care must be taken that air is not thrown into the bladder, for the urine will be decomposed and cystitis set up, as I have seen happen in one case. While I am digressing, I must state that dysentery, in its early stages, might, with great advantage, be treated with this dusting arrangement. Nothing in this disease could be more salutary in its effects, it seems to me, than a thick coating of bismuth, containing a small amount of morphia, or the iodides freely and frequently applied act more speedily in bringing about a favorable result than any other class of remedial agents which I have used in those troubles. In those cases of endometritis in which we see a glairy mucus, looking like the white of an uncooked egg, running from the os, and when little tenderness is manifested in passing the uterine sound, nothing has acted so well and with such gratifying results as the chlorate potash, rubbed to a fine powder and sprinkled freely over the membrane lining of the body of the womb.—*North Carolina Med. Four.*, Aug., 1886.

Janvriot (J. E.) Dermoid Cysts of Both Ovaries.—The subject was a German lady, forty-eight years of age, whom I was requested by Dr. F. A. Castle to see in company with him. A large abdominal

tumor was evident, springing from the right side, cystic in character, but with solid portions, especially within the pelvis. The uterus was of normal depth and mobility, and was, apparently, entirely free from the new growth. Six years ago, she observed one day, while at stool, that a bundle of hairs protruded from the anus. She tried to pull it away, but was unable, and stopped pulling only when compelled to do so by the severe pain which the effort caused. She refused to permit a doctor to examine her, and one day succeeded in pulling it all out, about three years after it was first observed. Since then she was not aware that it had grown again. About the same time she began to be troubled with very obstinate constipation which continued two years. Two years ago she first began to notice that her abdomen was growing larger. Nothing unusual occurred in the removal of this tumor, which had developed from the right ovary, contained several quarts of bland fluid, and was also the seat of three dermoid cysts which contained an abundance of sebaceous matter and hair. Upon the left side of the pelvis a tumor still remained, of the size of a very large orange, and firmly imbedded in the pelvic tissue. Some force was required to remove it from its bed, and this operation was followed by free oozing of blood, which was checked with some difficulty. The pelvic peritoneum was, of necessity, torn in the enucleation of the tumor, from which a fibrous prolongation projected in the direction of the rectum. Drawing upon this prolongation with sufficient force, the rectum was opened, a rent one and a half inches in length being made, and through this opening a small diverticulum, attached to the tumor by the fibrous prolongation, was drawn, which had growing upon it a long lock of black hair smeared with unmistakable fecal matter. The position of the wound in the rectum, at the bottom of a deep and dark cavity, made its closure a matter of the greatest difficulty. The cavity was illuminated, however, by a large mirror held at a sufficient height above the patient's body, and a continuous silk suture was at length applied. The abdominal cavity having been thoroughly cleansed, the parietal peritoneum was closed with a continuous catgut suture, excepting at the lower angle, which was left open for the passage of a glass drainage-tube, the latter being carried to the bottom of Douglas'

cul-de-sac. Finally the abdominal wound was closed with silver sutures deeply passed, dusted with iodoform, and antiseptic dressings adjusted. The carbolic acid spray was used in the operating-room for four hours previous to the operation, which was performed with antiseptic precautions. The patient made a good recovery.—*Am. Jour. of Obstetrics*, etc., Jan., 1886.

CUTANEOUS AND VENEREAL.

Preble (E.) on Brown Discoloration from Repeated Exposure to Sulphur Vapor Instantly Removed by Hydrogen Peroxide.—During April, 1886, Mr. X—, aged twenty-one, came under my treatment for scabies. He was put upon sulphur ointment and sulphur baths, and, as he improved rapidly, and was especially anxious to be free from the disease at the earliest possible moment, he took a sulphur bath every other day, half a pound at a time. When virtually free from the scabies, and looking forward to an immediate return to his home in the country (he had taken some four or five baths), his hands suddenly assumed a deep brownish color, and while the tint deepened, it also extended up the arms. After some simple measures, which produced not the slightest effect, I ordered him to apply hydrogen peroxide. First giving the parts a soaking with hot water and soap, he applied the H_2O_2 with a tooth brush, and had the satisfaction of seeing the stain disappear completely in a single application.—*Four. Cut. and Vener. Dis.*, July, 1886.

Taylor (R. W.) on Precocious Gummata.—Like the osseous affections, the affections of the nervous system, and malignant syphilides in general, the gummata syphilæ may be precocious in appearance, occurring as early even as the second month of infection.

Of the precocious gummatus syphilide or gummata, there are three quite clearly marked forms: first, the early, general, and copious form; second, the more localized form, which may invade several regions, is usually symmetrically distributed, and sometimes even is confined to one region, particularly one side of the face or scalp and the roof of the mouth; and thirdly, a form in which more or less severe neuralgies precede and accompany the eruption,

which in many particulars resemble simple erythema nodosum, but which in its etiology is not in any way related to the simple form of eruption, but is a direct outcome of the syphilitic diathesis.

These precocious gummata partake in general of the features of those of later forms, but they differ in the more acute invasion, in a much more rapid course, and are usually not as profound and destructive in their action as the classical eruption.

Of these precocious forms of gummata, there are found to be two varieties, one a non-ulcerative or resolute, the other ulcerative.

In the treatment of these precocious syphilides, a combination of mercury and iodide of potassium is much more efficacious than is mercury alone.—*Med. News*, Sept. 4, 1886.

Benson (E. B.) on Erythema Syphiliticum.—Certain forms of erythema arising in the course of syphilis may be regarded as products of the latter disease; more especially when they coincide with, or are directly followed by, an outbreak of typical syphilitic manifestations.

In view of their resemblance to simple angioneurotic or neuritic affections of the skin, it is probable that they also correspond to the latter in their mode of origin; and, while doubtless due primarily to the syphilis, they are not pathognomonic of the latter disease, and probably not equivalent etiologically to true syphilodermata.

The syphilitic erythema may, through reflex irritation, and in the same manner as a local traumatism, become the seat of a characteristic syphilitic infiltration.—*N. Y. Med. Record*, Sept. 4, 1886.

Fox (G. H.) on Lymphadenoma (Mycose Fongoide) with Autopsy.—During pregnancy, in the summer of 1881, the patient, aged thirty-three, had suffered with general pleuritis, which had passed away after her confinement in October. A year after small, flattened, circular tumors had appeared in the axillæ and on the breasts. These had become moist and had been accompanied with a burning sensation. The eruption had disappeared from these situations and had reappeared upon the back and other portions of the body. After the birth of her last child, in February, 1885, a tumor had developed at the inner angle of the left scapula. The lesions on the other parts of the body had disappeared with the exception of two spots on

a finger and one on the left cheek. The tumor on the left scapula had gradually softened and disappeared. The patient was admitted to the hospital in October, 1885, and was fairly well nourished. There were at that time numerous tumors on the body, some of them being superficially ulcerated. The worst tumors were on the breast. Fowler's solution was administered, hypodermically, without benefit. Chaulmugra-oil was given in increasing doses until forty drops four times daily had been taken, without causing any improvement. The patient died in April, 1886. The microscopical examination gave the usual appearances of these growths. The internal organs were found to be normal.—*N. Y. Med. Jour.*, Sept. 4, 1886.

MISCELLANEOUS.

Knight (F. I.) on Laryngeal Vertigo.—All reported cases with the exception of one have been in males. The average age at which the attack has occurred has been 47½ years. The cough which produced the attack was slight in six cases, spasmodic in two, and severe in three. Momentary loss of consciousness occurred in fourteen cases. One case fell, but declared that he had not lost consciousness. Dizziness is mentioned in eleven cases. In four cases there seems to have been decided evidence of laryngeal spasm. In one this was doubtful. In four cases there was decided congestion of the head and face. In two the patients were pale. Convulsive movements of the limbs occurred in three cases. In one the movements affected the face and head, and in another the face. In these cases there was no biting of the tongue, no frothing of the mouth, and no involuntary micturition. The speaker objected to the term laryngeal vertigo. There probably is no real vertigo in these cases in the sense of the vertigo seen in aural vertigo. There is simply giddiness or lightness of the head. These cases cannot be considered to be instances of petit mal.

The cause of the attacks is disturbance of the cerebral circulation, perhaps due to the compression of the large blood-vessels of the chest and perhaps the heart. Even without this, the effect of rapid breathing is well known. This causes marked cerebral disturbance.—*Four. Am. Med. Ass'n*, June 19, 1886.

Gubert on Repeated Vaccinations in the Incubation Stage of Small-pox.—A Russian medical student, M. Gubert, recently performed a series of experiments with calf vaccine, chiefly making use of dogs as subjects, for the purpose of deciding whether there is any use in vaccinating persons (1) who have already been infected by small-pox, (2) who are in the incubation stage, or (3) in whom the disease may have actually begun to manifest itself. By repeating the vaccination on three successive days he was able to produce mature vesicles in four or five days. This rapid saturation of the organism with the vaccine virus enabled M. Gubert to arrest the development of the disease in twenty-seven persons, in whom, he states, he was quite certain that the small-pox was incubating, while in twelve others the disease was so modified as to be considered only varioloid.—*Lancet* (from the *Zemskaya Meditsina*), July 3, 1886.

Hamilton (T. H.) on Fibrous Epulis Growing during Pregnancy.—About the middle of last August, the patient, a woman of thirty, became pregnant, and early in October she noticed a growth commencing from the gum, between the left central and lateral incisor teeth. Four and a half years ago, she became pregnant for the first time, and about six or eight weeks after conception, the epulis commenced to grow. It gradually increased in size, projecting upwards and outwards until it rose above the teeth, and prevented the approximation of the upper and lower jaws. This steady progress continued until she was confined; a day or two subsequent to this event, it began to show signs of diminished vitality, assumed a whitish and subsequently a black color, and was easily removed. A repetition of exactly the same process occurred during the next pregnancy, and not a trace of it remained at the end of the month after delivery. In the next pregnancy, the growth began for the third time, and to all appearances promised to run the same course as on previous occasions. It was successfully removed with three teeth.—*Australasian Med. Gaz.*, Feb., 1886.

Fothergill (J. M.) on Remote Effects of Remedies.—When the poor, worn, emaciated consumptive is racked with cough, which almost shakes the frame to pieces, it would be cruelty to withhold the welcome, soothing cough

linctus. But it is a very different matter to give opium or morphine to allay a cough which is little more than troublesome. To sip a cough linctus at frequent intervals, or to take a cough lozenge from time to time during the day, is often a most pernicious practice. The sedative carries with it its all-round action, and the liver and digestive organs feel its paralyzing influence.

So much harm have I seen done by the poisonous cough linctus, that it is banned in my wards with only one exception—namely, when the case is hopeless. But so long as there is a prospect of life, I never throw the chance away, nor blot it out by handicapping the assimilative organs by the crippling effect of continuous sedatives. My rule may be too hard and fast in the opinions of some others who act differently, but it gives good results. When the cough prevents sleep, a narcotic at bedtime may be indicated; but this is far less objectionable, possibly as the digestive organs are resting at that time; and it is possible, too, to counteract any evil effect by adding an agent like aloes, which is an hepatic stimulant, as well as acting on the bowels. But opiates during the day are a slow poison in cases where the great aim is to improve the nutrition.—*Br. Med. Jour.*, Aug. 21, 1886.

Husband (H. A.) on Belladonna in the Treatment of Nocturnal Incontinence of Urine.—Of all preparations of belladonna the extract is the best. The success in treatment, to a great extent, depends on the clearing of the rectum of its contents, and the application of the belladonna as near the bladder as possible. Partial success at first is no reason to discontinue the treatment in despair. Suppositions gr. i. of the extract of belladonna were employed.—*Canada Lancet*, May, 1886.

Sims (H. M.) on Multiple Neuromata Following Removal of the Ovaries for Epilepsy.—After the wound had healed and the patient was able to sit up, she complained that she could not bear the weight of her clothes, and indicated a certain point on the abdomen as the seat of pain. On examination, a group of small nodules at some distance beneath the skin could be felt at the painful site. Crops of these nodules sprang up in different places until there were at least half a dozen groups of them. Vain attempts were made to dispel them by means of hypodermic injections of iodine. It was finally necessary to ad-

minister ether and to dissect out the nodules separately. They were situated in the midst of the adipose tissue, at least half an inch beneath the skin. Macroscopically they presented the appearance of little pellets of fat. When examined microscopically they showed nothing except masses of fat, in the centres of which were collections of what looked like cicatricial tissue inclosing nerve-filaments.—*American Four. Obstetrics*, etc., Aug., 1886.

Lautenbach (L. J.) and Bennett (Alice)—Ophthalmoscopic Studies of Acute Mania.—The frequency of retinal hyperæmia and congestion in the favorable and recovered cases is rather striking; so also is the absence of marked atrophy. The other cases—those which either recurred or are unfavorable—present rather a large number of cases of papillitis and atrophy.

We accepted the facts, refrained from drawing conclusions, have hoped that as our cases grew in number our knowledge would become broader, and that conclusions might develop unconsciously. In endeavoring to draw conclusions we have a difficulty with which to contend—the undoubtedly various bases of the symptoms of mania: perhaps in one case due to an abnormality of structure, a want of development; perhaps, again, a localized congestion, or even a degeneration; or perhaps an irritation nucleus occasioning vascular disturbances by reflex action; or, again, a general vascular engorgement; or one of various diseases acting through some change in blood pressure or in the constitution of the blood or by reflex action.

A few facts have developed:—for instance, we feel that if in acute mania hyperæmias or congestions only are present, the case is apt to terminate favorably; that if papillitis be present, the chances are decidedly lessened; that this is also the case if marked atrophy be present; that if a condition of retinal hyperæmia be present, in addition to a slight atrophy, the chances of recovery are decidedly more favorable than would be the case were the latter alone present.—*Four. Nervous and Mental Disease*, June, 1886.

Cheatham (A.) on a Needle Swallowed—Removal from Arm.—To-day a negro man, aged thirty, with fine muscular development and every evidence of robust health, complained of pain in his left arm, which he first noticed two days ago. This

morning he was unable to continue his work (that of brick-laying) on account of the pain incurred when the muscles of the arm were exercised. An examination revealed a hard substance imbedded in the biceps about midway between the shoulder and the elbow. The offending object was long and pointed, and, presenting obliquely across the body of the muscle, one end was forced up. An incision was made, and a needle one inch and a quarter long was extracted, which gave evidence of having been in its unnatural encasement for some time, it being oxidized and the point blunted. He disclaimed having a needle stuck in him by accident or otherwise, but said he had often swallowed pins for the edification of his sable associates, and some months ago he swallowed a needle. He did not recollect having suffered any special pain or inconvenience from its being in the stomach or during its migratory movements *en route* to the point of its extraction.—*Virg. Med. Mo.*, Sept., 1886.

Trowbridge (E. H.) on a Simple Method of Adding Nitric Acid to Urine in Testing for Albumen.—We must first bear in mind that the specific gravity of normal urine ranges from 1.015 to 1.022, though some authors place it as low as 1.005 and as high as 1.030. Now the specific gravity of nitric acid (U. S. P.) is 1.420 and dilute nitric acid (U. S. P.) is 1.059, each being greater than normal urine. To test the urine for albumen, pour into a test-tube of medium size enough urine, so that there shall be a column $2\frac{1}{2}$ centimetres in height; then with a pipette or small tube take up a column of nitric acid $3\frac{1}{2}$ centimetres in height, or, in general, let the column of acid be a little higher than the column of urine (so better to notice the displacements of the fluids). With the finger firmly pressed against the upper end of the pipette or tube, pass the latter to the bottom of the column of urine still keeping the finger pressed against the upper end; the fluids will mix according to the force of their specific gravity—*i. e.*, the nitric acid will gradually flow to the bottom of the test-tube and the urine will rise in the tube to the height at which was the nitric acid. By this method we can more easily and more clearly notice any turbidity which may be formed, and without any agitation to the fluids. The same method can be followed in using acetic acid (U. S. P.), which has a specific gravity of 1.048, or the

glacial acetic acid, which has a specific gravity of 1.056-1.058.—*Med. News*, Aug. 28, 1886.

Bergeon (L.) on Injection of Gaseous Remedies into the Rectum.—

This therapeutic method is based on the principle of physiology established by Claude Bernard, that poisons introduced into the rectum are not dangerous while pulmonary elimination is unchecked; and also upon the fact that a current of carbonic-acid gas can be introduced into the intestine in indefinite quantity, without disturbance, if the injection is carefully done.

This method has been tried in pulmonary phthisis. After many trials sulphurous mineral waters have been found preferable. A current of four to five quarts of carbonic-acid gas, after traversing from one half to one pint of a sulphur water, is introduced into the rectum twice a day. In a few days, says the author, the cough and perspiration are suppressed, and the expectoration modified both in quality and amount. General improvement ensues both in recent and confirmed cases.—*Gaz. des Hôp.*, Aug. 17, 1886.

Foy (Geo.) on Galium Aparine.—Sir William Hooker and Dr. Arnott in their "Field Book of British Plants" enumerate fourteen families of the genus "galium" of the natural order Rubiaceæ.

The genus takes its name from γαλα, milk, which some members of the genus are used to curdle.

They have square stems, leaves in wholes. The predominant colors of the flowers are yellow and white.

The *galium aparine*, commonly called goose-grass or clevers, is one of the best known of the genus, and has long been used as a popular remedy for scrofula, cancer, and to stay bleeding.

It flowers in June and July, and has a pretty white flower, and is easily recognized by its globular seed-like bodies with hooked prickles, by which they adhere to the skins of animals, and so become widely dispersed. Its introduction to modern practice is due to Dr. Winn, who, in 1854, read his paper on "galium aparine" before the Medical Society of London. His attention was first drawn to the plant by a patient who had long suffered from *lepra vulgaris*, and had taken all the usual remedies in vain. He informed Dr. Winn that he had at last discovered a remedy for this troublesome complaint in a common wild

plant of which he did not know the name. Dr. Winn found the plant to be *galium aparine*, and, on making inquiries, learnt that three other persons in that district had been cured by the same remedy. Dr. Winn tried the *galium aparine* in 19 cases of skin disease: 5 were cases of lepra, 6 of psoriasis, 4 of eczema, 2 of lichen, 1 of inflamed acne, and 1 of ordinary colored syphilitic eruption. In 9 of these cases the benefit derived from the medicine was very striking. The preparation used by Dr. Winn was an inspissated juice in four-ounce doses three times a day.

Quite recently Surgeon-Major Orwin draws attention to the benefit derived from its use in an obstinate case of psoriasis of the left hand of twelve months' standing, after crysophanic acid, tar ointment, arsenic, etc., had been tried in vain. The rash disappeared by the use of *galium aparine* taken as an infusion and externally applied as a poultice.—*The Med. Press and Circ.*, June 16, 1886.

Olsztynski on the Green Color of Extract of Cannabis Indica.—According to a recent rather disquieting statement by Dr. MacLagan, the green coloration of extract of Indian hemp is caused by the presence of pretty considerable quantities of copper which is introduced into the preparation by the employment of copper utensils. An extract prepared in a china vessel would have a brownish dark color. MacLagan's assertions are now flatly contradicted in the Polish *Wiadomosci Farmaceutyczne*, No. 5, 1886, p. 104, by M. Wladislaw Olsztynski, who has analyzed a fresh specimen of the extract possessing a beautiful green color, and has not found any trace of the metal in question. Hence the author concludes that a green coloration is a natural property of the drug. Whether this preparation possesses a pure green or a more brownish-green tint, depends upon the freshness of the material used. On heating the extract with copper filings it assumes a still more beautiful green color.—*Lond. Med. Record*, Aug. 16, 1886.

Waters (E. G.) At what Part of the Intestinal Canal do its Contents Become Feculent?—The weight of evidence is largely in favor of the supposition that the contents of the small intestine, before they are pushed beyond the ileo-cæcal valve, are, as a rule, probably wanting in no feculent feature, unless it be that of mere solidity. If the contents of the small in-

testine are not excrementitious, how is it that in stercoraceous vomiting such matters are brought up, if, as some experimentists tell us, the ileo-cæcal valve is impervious to the return even of liquids from beyond it? And if the chief office of the colon is absorption, according to Foster, how does so considerable an accumulation of feculent matter take place in it, when we remember that Berzelius estimates the residue from food at less than 33 per cent. of the entire mass? To these and other similar questions it seems to me there can be but one answer.—*Med. and Surg. Reporter*, Aug. 28, 1886.

PUBLISHERS' NOTES.

A Successful Food for Infants.—Douglass H. Stewart, M.D., 332 W. 47th St., New York, reports as follows: "I have made a test in above fifty cases of the Lactated Food you so kindly sent to the Northwestern Dispensary for me, and can only add that in every instance there was an improvement more or less marked. I have had such poor success with kindred foods that I employed your preparation in rather a faint-hearted way at first, but after one or two trials was convinced that Lactated Food is all you claim for it."

Peacock's Bromides.—Peacock's Bromides is a valuable remedy and I can heartily recommend it to the profession where the use of such a preparation is indicated. It takes the place in our list of remedies that has long been needed. It is all that is claimed for it.

A. M. CHORD, M.D.,
Logansport, Ind.

Horsford's Acid Phosphate.—Dr. T. F. Breck, Springfield, Mass., says: "I consider Horsford's Acid Phosphate very superior in diseases pertaining to the nervous system, and am very much pleased with results."

Colden's Beef Tonic.—Having become familiar with "Colden's Liquid Beef Tonic," I take pleasure in recommending it as an excellent preparation, combining as it does food and tonic in a remarkable way, producing good blood, health, and strength.

S. W. HUNTER, M.D.,
Baltimore, Md.

Uterine Tonic.—Alettris Cordial (Rio) is, without doubt, an excellent Uterine Tonic. I am more than pleased with the satisfactory results produced by its use in cases of uterine troubles which have come under my observation. I regard it as an invaluable medicine.

H. T. COX, M.D., Mobile, Ala.

Lactopeptine.—

PHILADELPHIA, PA., May 30, 1878.

I have found great satisfaction in the use of Lactopeptine, and have ordered it frequently in cases of dyspepsia, especially where there is want of tone and defective secretion.

JOHN H. PACKARD, M.D.,
Pres. Pa. Co. Obstet. Society; Surg. Episcopal and Women's Hospital.

Iron-Alum Mass.—The Seven Springs Iron-Alum Mass is, in my opinion, the best iron preparation known to the profession.

L. J. BURTON, M.L.,
Blossom Prairie, Texas.

Phospho-Muriate of Quinine.—The attention of our readers is called to this advertisement on first page of this number.

Cod-Liver Oil Tonic.—In prescribing cod-liver oil, if you order Scott's Emulsion you will give your patient not only a pure oil but a combination holding the hypophosphites of lime and soda in intimate mixture.

Operating-Chair.—The conveniences of having an adjustable chair in one's office, for purposes to which the Klein Chair, made in Chicago, is adapted, will be appreciated if Mr. Klein's circular be read.

Ricord Capsules.—Send to E. H. Truex, 298 Pearl St., New York, for circulars pertaining to these capsules.

Syrup of Hypophosphites.—

J. A. McArthur, M.D.,

Dear Sir:—For three years I have used your Syrup of the Hypophosphites. I now use none other, as I have found by experience that it is a very pure, reliable, and effective preparation, and the only Hypophosphites in which I have any confidence. I am familiar with your process of manufacture and know it to be trustworthy. I candidly and conscientiously recommend the preparation to the profession.

F. D. STEPHENS,
City Physician.

Lynn, Mass., Jan., 1886.

THE MEDICAL ANALECTIC

A
MONTHLY EPITOME OF PROGRESS IN ALL DIVISIONS OF
MEDICO-CHIRURGICAL PRACTICE

EDITED BY
R. W. AMIDON, M.D.

VOL. III., No. 10.

October, 1886.

WHOLE No. 34.

LEADING ARTICLES.

Haynes (F. L. and J. R.)—Hyoscine Hydrobromate as an Hypnotic in Private Practice.—This paper is based on the administration of 338 doses of hyoscine to fifty-seven persons.

In some instances little or no effect was noticed after hyoscine, but generally one or more of the following symptoms occurred :

1. Delirium, rambling or muttering, with hallucinations of vision, resulting in attempts to grasp imaginary objects. Otherwise, it was not attended by marked muscular movements, the patient being generally contented to lie in bed.

2. Sleep, sometimes apparently natural, sometimes disturbed.

3. Intense reddening of whole face, with sensations of heat affecting the entire body.

It was not determined whether the temperature was actually elevated in such cases. Following the analogy of belladonna-poisoning, where we have noted a temperature as high as 103° , it seems probable that hyoscine-poisoning of *this type* is also associated with fever. But belladonna-poisoning is associated with dryness of the skin, while hyoscine does not check perspiration, though we have not noticed that it increases the activity of the sweat-glands.

Pallor of the face was seen much more frequently than flushing.

4. Muscular weakness, sometimes extreme.

5. Headache, sometimes affecting the entire cranium, sometimes frontal, and sometimes confined to region of inter-parietal suture.

6. Dryness of the throat and mouth.

7. Dilatation of pupil, with blurred vision.

The most remarkable variation was noticed in the symptoms in different indi-

viduals, and, sometimes, in the same individual. This variation was but little influenced by the size of the dose. Thus we administered, personally, on the same day, under very similar circumstances, equal doses to two women (Cases 14 and 28) : one was poisoned, the other fell into a pleasant sleep. In Case 26, gr. $\frac{1}{100}$ was followed by sleep, while gr. $\frac{7}{10}$ produced delirium ; in Case 17, gr. $\frac{1}{100}$ produced delirium, and gr. $\frac{7}{10}$ was followed by sleep.

We have divided our cases, roughly, into the following classes :

1. Hyoscine produced sleep, fifteen cases.
2. It produced delirium, thirteen cases.
3. It was without marked effect, or was followed by various symptoms, twenty-nine cases.

As the result of our experience, we feel constrained to state that we consider hyoscine extremely unreliable as an hypnotic, and that it should not be used in general practice, except in cases in which other hypnotics have failed.

In the few instances where the alkaloid was used for other purposes, the results were not decisive. In one case of asthma (29) it did good ; in another (52) it aggravated the patient's sufferings. Used to overcome the untoward effects of morphine in one case (10) it acted charmingly ; in another (42) the results first noted were nullified by subsequent experience ; and in a third (11) the combined bad effects of both drugs were shown.

Merck's hyoscine was used, except in a few instances, when that of M. L. C. Marquart was given (Cases 13, 15, 16, 46, 47, 54, 55, 56, and 57). Generally we administered the drug personally, and, in all cases, the greatest care was taken both in dosage and in the report of the effects. During cool weather, a solution containing ten per cent. of alcohol was well preserved ; but in summer, in order to prevent confer-

void growths, the alkaloid was dissolved in pure alcohol (gr. $\frac{1}{100}$ to $\mathbb{M}$ xx).

I. Hyoscine Produced Sleep.

1. Female, aged nineteen, marked insomnia from profound anæmia.

Hyoscine, gr. $\frac{1}{100}$, at bedtime, gave seven hours' refreshing sleep. This was repeated sixteen times, at intervals, with similar effects, to the great benefit of the patient.

2. Female, aged nineteen, last stage of phthisis.

Hyoscine, gr. $\frac{1}{100}$, in daytime, produced sleep for one and one half hours; gr. $\frac{1}{100}$, three and one half hours. Repeated twelve times, with similar effects.

3. Female, aged sixty, insomnia from old age, bronchitis.

Hyoscine, gr. $\frac{1}{100}$, at 7 P.M. Fell asleep at 7.30, and slept most of night; gr. $\frac{1}{100}$, next day, produced sleep for an hour. Repeated ten times, with similar results. She thought the drug relieved her cough.

4. Male, aged forty-five, gastric catarrh and severe headache, produced by drink.

Hyoscine, gr. $\frac{1}{8}$, at 7.30 P.M. Fell asleep at twelve, and awoke at six; well.

5. Male, aged fifty-two, delirium from drink; almost sleepless for a week; hallucinations of vision, hiccough, vomiting.

First night.—Hyoscine, gr. $\frac{1}{8}$, in divided doses, was given between 3 P.M. and 12 M. next day. During this time he slept two hours, or about as long as during the previous night. Stomach was settled, and his general condition was greatly improved, as the result of abstinence.

Second night.—Hyoscine, gr. $\frac{1}{8}$, in four doses. Slept six and one half hours, and woke free from hiccough.

Third night.—Slept about one half as long as second night, without hyoscine.

Fourth night.—Hyoscine, gr. $\frac{1}{100}$. Slept eight hours.

6. Female, aged thirty-five, confined to bed by miscarriage.

Hyoscine, gr. $\frac{1}{100}$, at 10 A.M. Drowsy all day; slept an hour in the afternoon.

7. Female, insomnia, acute pneumonia.

Hyoscine, gr. $\frac{1}{100}$, at 8 P.M. Fell asleep in fifteen minutes, and slept six hours.

8. Female, aged thirty-five, pharyngitis, causing fever, severe headache, and sleeplessness.

Morph., gr ii., in three doses, by suppository, given during the night, failed to produce sleep or any amelioration of suffering. Hyoscine, gr. $\frac{1}{8}$, in four doses during next

day. Slept very well during most of day and succeeding night.

On second day.—Took gr. $\frac{1}{8}$. Fell asleep in an hour, and slept an hour.

9. Female, aged twenty-five, debility after cholera morbus.

Hyoscine, gr. $\frac{1}{100}$, in eight doses, during day. Slept almost continuously after first dose.

10. Female, aged fifty-five, intestinal colic. In morning she took morphine, relieving pain, but causing (as it always does in her case) severe nausea, vomiting, and insomnia.

To relieve these symptoms, ordered at 9 P.M. hyoscine, gr. $\frac{1}{100}$, in two doses. Immediate relief; slept all night; well in morning. (Compare with Case 11.)

11. Female, aged twenty-five, bronchitis.

Hyoscine, gr. $\frac{1}{8}$, with morph., gr. i., in ten doses, in twenty-four hours. Dozed, but did not sleep; severe nausea; hallucinations of vision.

12. Male, aged seventeen, convalescing from typhoid.

Hyoscine was given at intervals of several days, always in the morning. After gr. $\frac{1}{100}$, did not sleep as much as usual. After gr. $\frac{1}{100}$, slept three hours more than usual. After gr. $\frac{1}{8}$, did not sleep. After gr. $\frac{1}{8}$ on three occasions, and gr. $\frac{1}{4}$ on one occasion, he slept one and a half hours more than usual. Hyoscine did not modify the profuse sweating, which was one of this patient's symptoms. Twice flushing of the face and dilatation of pupils occurred, once headache, but never any throat dryness.

13. Female, aged twenty-five, insomnia following intermittent.

First and second nights.—Did not sleep.

Third night.—Hyoscine, gr. $\frac{1}{100}$, was given at 8 P.M., when she felt no inclination to sleep. Fell asleep at 8.30, and awoke at twelve. At 12.30 received hyoscine, gr. $\frac{1}{100}$. Fell asleep at one and awoke at five.

Fourth night.—Hyoscine, gr. $\frac{1}{100}$, at nine o'clock. Fell asleep at ten and awoke at six next morning.

14. Female, aged forty, eighth day puerperium.

Hyoscine, gr. $\frac{1}{100}$, at 1 P.M. The only effect was a pleasant sleep, commencing in fifteen minutes and lasting for three hours, when she was awakened by callers. (Refer to Case 28.)

15. Female, aged twenty-eight, phthisis, had recently recovered from severe whiskey-

gastritis. Had not had good night's rest for two weeks.

Hyoscine, gr. $\frac{1}{100}$, at 10.30 P.M. Fell asleep at eleven, awoke at three for a few minutes; then slept till five. Vomited. Fell asleep again at 5.30 A.M., and slept until eleven. Felt wretched and vomited freely all day. Refused any more of "that poison."

16. Female, aged twenty, insomnia, typhoid.

Hyoscine, gr. $\frac{1}{80}$, in two doses at night, was followed by about three hours' sleep. No ill effects. Had not rested so well for several nights.

II. Hyoscine Causes Delirium.

17. Female, aged fifteen, acute catarrhal pneumonia; insomnia produced by cough and fever; mind clear.

First night.—Hyoscine, gr. $\frac{1}{80}$, repeated in three hours. Slight delirium all night.

Second night.—Hyoscine, gr. $\frac{1}{80}$, at nine; delirium for four hours; then slept until morning.

Third night.—Hyoscine, gr. $\frac{1}{80}$, with same effect.

Fourth night.—Hyoscine, gr. $\frac{1}{80}$, at eight. Slept from 11 P.M. to 1 A.M. From one to two remained awake, drinking constantly, then fell asleep, and awoke at 5 A.M. No delirium from this dose.

Fifth night.—Hyoscine, gr. $\frac{1}{80}$, combined with morph., gr. $\frac{1}{16}$, at seven. Fell asleep immediately, and slept till 5 A.M.

Sixth night.—Slept fairly well without hypnotic.

18. Boy, aged nine, restlessness due to gastric catarrh.

Hyoscine, gr. $\frac{1}{80}$, in five doses, in six hours. No sleep.

After second dose, he began to talk incessantly and irrationally, and to clutch at imaginary objects; he was excited in manner. When placed on his feet, he attempted to walk, but staggered, and would have fallen, if he had not been supported. Redness of face, and dilatation of pupils. Symptoms resembled mild belladonna-poisoning, such as we have frequently seen in children, treated for whooping-cough, by large doses of that drug.

Paregoric, 3 vi., was given in divided doses, but he remained delirious and sleepless for seventeen hours.

19. Male, aged forty, last stage, acute tuberculosis.

Hyoscine, gr. $\frac{1}{80}$, every eight hours, until gr. $\frac{1}{8}$, was used; produced no sleep, but

very mild, rambling delirium. Then same dose was repeated every two hours, until $\frac{1}{8}$ additional was used. The delirium became more marked, and lasted until eight hours after the last dose, but did not seem unpleasant either to patient or nurse. Morph., gr. $\frac{1}{4}$, had no effect on the delirium.

The same patient took from gr. $\frac{1}{4}$ to $\frac{3}{4}$ every night for four nights, with the effect of producing pleasant sleep, lasting all night.

20. Female, aged sixty-five, habitual insomnia of old age. Laudanum in large doses produced pleasant sleep; its use had become habitual at one time, but two months before taking hyoscine she had discontinued it.

Hyoscine, gr. $\frac{1}{8}$, in sixteen doses, in two nights, produced no sleep, but mild delirium. On the *third night* slept somewhat without hypnotic.

21. Male, aged sixty-six, cerebral paralysis, insomnia, delirium.

Hyoscine, gr. $\frac{1}{80}$, in four doses, in two nights, had no effect except to make him more delirious.

Morph., gr. $\frac{1}{4}$, with hyoscine, gr. $\frac{1}{80}$, in two doses, made him sleep well, and repetition of such doses served a good purpose until his death.

22. Female, aged sixty, bronchitis, insomnia.

Hyoscine, gr. $\frac{1}{80}$, in two doses. No sleep. Delirious all night.

Chloral, gr. xl, in two doses, was given the succeeding night, and, after five hours, produced profound sleep lasting eight hours.

23. Male, insomnia, chronic bronchitis.

Hyoscine, gr. $\frac{1}{80}$, at night, in two doses. No sleep. Slight delirium.

The chloral-bromide-morphine mixture, in moderate doses, produced sleep.

24. Male, acute pneumonia, sleeplessness.

Hyoscine, gr. $\frac{1}{80}$, in seven doses, in twenty-four hours. After first dose he became delirious (hallucinations of vision, rambling talk, kicking, and pulling at bed-clothes and imaginary objects), and remained so for thirty-six hours. At the twenty-fourth hour, he was ordered morphine, gr. $\frac{1}{4}$, and in eight hours (after taking gr. i.) fell asleep.

After this morphine, in moderate doses, acted well as an hypnotic.

25. Male, aged seven, cerebro-spinal meningitis (headache, fever, violent delirium, jactitation, absolute sleeplessness, opisthotonos, dilated pupils).

Hyoscine, gr. $\frac{1}{16}$, every three hours, until $\frac{1}{8}$ was taken. Then $\frac{1}{16}$, every three hours, till $\frac{1}{4}$ was taken. No change, except that delirium seemed more marked. Then paregoric, 3 ss., every two hours, until $\frac{3}{4}$ i. was taken. No improvement.

Then moderate doses of chloral, bromide, and morph. produced sleep, and this mixture was used with great satisfaction, for this purpose, until he recovered (about ten days).

26. Female, aged thirty, insomnia, acute rheumatism.

After hyoscine, gr. $\frac{1}{16}$, at 8 P.M., slept two and a quarter hours.

Two days after took gr. $\frac{1}{16}$ at 8 A.M., and slept one hour. Three days after, gr. $\frac{1}{8}$, at 9.25 P.M., produced slight delirium, lasting all night. Three days after, gr. $\frac{1}{8}$ at 11.30 P.M. Delirium until 3 A.M., then sleep until 5 A.M.

27. Female, aged twenty-five, insomnia, due to nervousness and anæmia.

Hyoscine, gr. $\frac{1}{8}$, in divided doses, every night for three nights. During this time she did not sleep, but talked constantly, not allowing her room-mate to sleep. I could not determine that she was irrational. She felt so bright after taking each dose that she accused me of giving her a stimulant.

28. Female, aged thirty, eighth day of puerperium.

Hyoscine, gr. $\frac{3}{16}$, at 1 P.M. In half an hour, dimness of vision, headache, intense burning sensation of skin, extreme sense of weakness. Then constant, unintelligible muttering. Symptoms had nearly passed away by 6 P.M., and at ten she fell asleep.

29. Female, aged fifty-eight, asthma and bronchitis, insomnia.

Hyoscine, gr. $\frac{1}{8}$, at 11 A.M. Slept four and a half hours; then mild delirium for eight hours. Cough and dyspnoea much improved. As she had failed to procure any relief from her previous treatment (pot. iod., with small and frequently repeated doses of morphine), she was now directed to take hyoscine, gr. $\frac{1}{16}$, every two or three hours. This was so effectual that she was discharged in four days.

III. *Hyoscine Produced neither Sleep nor Delirium; but either had no Effect, or was Followed by Various Symptoms.*

30. Female, aged twenty-four, insomnia, neurasthenia.

Hyoscine, gr. $\frac{1}{16}$, every night for three nights; then gr. $\frac{1}{16}$ every night for three nights. Sleep more restless than usual; slept better after drug was discontinued. The eyesight was much impaired.

31. Female, aged forty, sleeplessness from bronchitis.

Hyoscine, gr. $\frac{1}{16}$, every night for eight nights caused restlessness. Slept much better without it.

Morphine in decided doses produced sleep.

32. Male, aged forty-eight.

Hyoscine, gr. $\frac{1}{16}$, at 6 P.M. Remained awake and restless all night.

33. Male, aged twenty, insomnia, delirium, typhoid fever.

Hyoscine, gr. $\frac{1}{8}$, had no effect whatever.

Morphine, in decided doses, produced sleep.

34. Male, aged thirty-five, insomnia from excessive mental exertion.

Hyoscine, gr. $\frac{1}{16}$, at night, no effect; gr. $\frac{1}{8}$, at night, was followed by sleep after one and a half hours, but he was disturbed by dryness of the mouth and throat, and considered that he rested much better without it.

Pot. brom., 3 ii., generally gave this patient a good night's rest, while chloral, 3 ss., produced ten hours of profound sleep.

35. Female, aged thirty-five, perimetritis.

Hyoscine, gr. $\frac{1}{16}$, at 10 A.M. No effect.

36. Female, aged fifty, dacrocystitis.

Hyoscine, gr. $\frac{1}{16}$, at 10 A.M. No effect.

Second day.—Hyoscine, gr. $\frac{1}{8}$, at 12 M. For three hours felt dizzy and "drunk"; was very talkative; throat extremely dry; eyesight very dim. She was forced to lie down through great muscular weakness, but did not sleep for thirty hours.

Eighth day.—Hyoscine, gr. $\frac{1}{8}$, at 3 P.M. Effects the same, except that she slept after eight hours.

37. Adult, insomnia, typhoid fever.

Hyoscine, gr. $\frac{1}{8}$, at night for two nights. No effect.

38. Adult, insomnia, typhoid fever.

Hyoscine, gr. $\frac{1}{16}$, at night. No effect.

39. Adult, insomnia, delirium tremens.

Hyoscine, gr. $\frac{1}{16}$, at night. No effect.

40. Adult, insomnia.

Hyoscine, gr. $\frac{1}{16}$, at night. No effect.

41. Female, aged thirty, puerpera.

Hyoscine, gr. $\frac{1}{16}$, at 11 A.M. No effect except to flush face.

Next day, gr. $\frac{1}{80}$ at 10 A.M. She did not think that she slept any more than usual.

42. Female; constant pain from sarcoma uteri.

Hyoscine, gr. $\frac{1}{80}$, was taken at sixteen different times day and night. She said: "It made me helpless; I could not speak or sleep, and felt as if I were sinking all the time."

Morphine stupefies this patient; causes her to doze, but not to sleep, and produces cramp-like pains in the stomach and vomiting.

Morph., gr. $\frac{1}{4}$, with hyoscine, gr. $\frac{1}{80}$, produces the same effect as morphine alone, *except that no cramp or vomiting occurs.*

After the above experiments morphine alone was used daily to relieve pain, and it became evident that toleration had become established. No stomach symptoms were now felt, nor was the sensation of helplessness as great as when hyoscine also was used.

43. Female, aged thirty-six, healthy.

Hyoscine, gr. $\frac{1}{80}$, at 3 P.M., had a somewhat exhilarating effect.

After ten days, gr. $\frac{1}{80}$ was given at 7 A.M. Headache, marked muscular weakness, no sleep, but slight drowsiness.

After ten days, last experiment repeated with same result. The body temperature was taken every hour; it remained normal.

44. Female, aged twenty-five, hydrosalpinx.

Hyoscine, gr. $\frac{1}{80}$, was given on two occasions during daytime. Did not sleep during day, and not as well as usual on succeeding night; weakness, etc.

45. Male, aged sixty-three, wild delirium from acute nephritis.

Hyoscine, gr. $\frac{1}{80}$, was given at six different times. Twice it was succeeded by a few hours' sleep. Four times it was without effect.

46. Male, aged seventy-one, wild delirium, fracture neck of femur.

First night.—No sleep, although chloral, $\mathfrak{D}$ ii., was given in two doses.

Second night.—Hyoscine, gr. $\frac{1}{80}$, was followed by eight hours' interrupted sleep.

Third night.—Hyoscine, gr. $\frac{1}{80}$. Wild delirium all night.

Next morning at 11.30 hyoscine, gr. $\frac{1}{80}$; fell asleep at twelve, and awoke very delirious at one.

After this chloral-bromide-morphine mixture, in large doses, produced sleep whenever an hypnotic was required.

47. Female, aged eighteen, insomnia from excessive study.

Hyoscine, gr. $\frac{1}{80}$, at 10.30. Fell asleep at twelve. "Frightened" sleep during remainder of night; awoke with severe headache, and declared emphatically that she "would take no more of that stuff."

48. Male, aged fourteen, healthy.

Hyoscine, gr. $\frac{1}{80}$, at 2 P.M. He was carefully watched by one of the writers, but no effect whatever was noticed.

One month after, he received gr. $\frac{1}{80}$ at 1 P.M., and in five hours, gr. $\frac{1}{80}$. No effect.

49. Female, aged thirty-five, dyspepsia.

Hyoscine, gr. $\frac{1}{80}$, at 2 P.M. Severe headache and throat-dryness, with general malaise. Fell asleep at 10 P.M.

50. Female, aged seventeen.

Immediately after removal of tonsil received hyoscine, gr. $\frac{1}{80}$, at 2.30 P.M. In twenty minutes face became very red, and she felt very sleepy and miserable. At 10 P.M. fell asleep, but sleep was much disturbed throughout night.

51. Female, aged twenty-two, third day puerperium.

Hyoscine, gr. $\frac{1}{80}$, at 11 A.M. Severe headache, redness of face, "burning" feelings, throat-dryness, thirst. Fell asleep twice, but was awakened in a few minutes by terrible dreams. Sweated profusely, as the temperature of the room was 98°.

52. Male, aged twenty-nine, mild asthma, troublesome cough, whistling râles.

July 30th, 9 A.M.—Hyoscine, gr. $\frac{1}{80}$, every two hours. 7 P.M., has taken four doses; mouth and throat *feel* dry.

July 31st, 9 A.M.—Slept but three-quarters of an hour last night, principally on account of dryness of throat. 7 P.M., slept about one and a half hours during day; slight frontal headache; pupils dilated; vision very indistinct.

August 1st, 2 P.M.—The last dose was taken at 10 A.M., making gr. $\frac{1}{80}$ in forty-eight hours. Slept three and three-quarter hours last night, making six hours in all since he commenced taking hyoscine. Now has very severe headache and extreme muscular weakness, besides symptoms mentioned above. The hyoscine symptoms passed away in about thirty-six hours more.

Although he complained constantly of throat-dryness, yet, on repeated examination, the mouth and pharynx presented a natural appearance.

53. Male, aged twenty-five, indigestion.

Hyoscine, gr. $\frac{1}{100}$, at 2 P.M. Felt very drowsy, and went to bed, but could not sleep till 1 A.M. Headache, weakness, fever, redness of face, dilatation of pupils.

Hyoscine, gr. $\frac{1}{100}$, three days after, at 9 A.M. Staggering gait, but *no headache or dryness of throat*; anorexia. Symptoms had about disappeared by 4 P.M. (when he walked a mile), except dilatation of pupils, which was quite noticeable at the end of forty-eight hours. Fell into a sound sleep at 10 P.M.

54, 55, 56, and 57 adults, suffering from insomnia. Each received gr. $\frac{1}{100}$ at night, without effect. Refer also to Case 11.—*Therap. Gaz.*, Sept., 1886.

Root (P. S.) on Hydrobromate of Hyoscine.—Thus far in the therapeutic literature of the uses of hyoscine, I have seen mentioned no untoward effects from the use of this drug in ordinary doses (such as recommended by alienists), ranging from $\frac{1}{100}$ to $\frac{1}{40}$ of a grain, administered hypodermically.

The following case illustrates the fact that even smaller doses than those indicated may occasion dangerous symptoms:

Mrs. —, aged fifty-eight, of full habit, the subject of "continued fever," had for a number of days suffered from persistent insomnia, not alleviated by ordinary remedies, temperature ranging from 101° to 103° ; pulse, 116 to 120 and weak; further, the symptoms indicated marked functional derangement of the sympathetic nervous system. The insomnia proving intractable, and rest being a requisite, Dr. E. L. Shurly was called in consultation, and upon his recommendation, concurred in by myself, I administered $\frac{1}{100}$ of a grain of hyoscine *per os* at 11.30 A.M. At 12.30 P.M. I was hastily summoned, and found the following condition: Patient in deep stupor, from which she could not be roused; respiration extremely shallow and 50 per minute; pulse 96, full and strong; tongue and mouth dry; pupils widely dilated; countenance suffused and livid; convulsive movement of lower extremities, etc. Suitable stimulants were administered, the patient being only able to swallow after the fluids had reached the lower pharyngeal muscles; in fine, there was no power to swallow. This condition persisted for two hours, when she could be partially roused, after which she passed into a more tranquil slumber, sleeping for a number of hours,

all effects of the drug passing off, but with mitigation of many of the nervous symptoms.

After this, on a partial recurrence of the symptoms, I administered $\frac{1}{100}$ of a grain, which was followed by the dreamful sleep characteristic of the drug. The above case is mentioned that the profession may not be too incautious in the administration of this powerful alkaloid. I may say that investigations were made as to the possibility of mistake in dispensing, but none was found to exist; and that I administered the same dose, hypodermically, to a case of acute mania, but without even getting the characteristic effect of the drug. In conversation with my friend, Dr. Geo. P. Andrews, of Detroit, he narrated to me a case in his own practice where similar symptoms resulted from the administration of $\frac{1}{100}$ of a grain. Finally, that hyoscine is an hypnotic of undoubted value is undeniable, but the promiscuous administration of it is not to be recommended, save with the utmost caution. From my experience, I would say that the usual dose should not be greater than $\frac{1}{100}$ of a grain, save in cases of acute mania.—*Therap. Gaz.*, Sept., 1886.

Green (C.) on Some Forgotten or Much-Neglected Remedies and Therapeutic Measures.—Those who have lived through many years of the history of medicine and have observed the progress and oscillations of therapeutic ideas and practices have become familiar with the tendency of medical men to run to extremes in pursuing some new measure or in making a hobby of some new remedy, until, finding that the remedy or measure would not do all that unreasoning enthusiasm had promised, they have come to neglect or set it aside for something new,—something having similar therapeutic results, but promising to act more in accordance with the old saw, "*Tuto, cito, et jucunde*."

Those who have been observant for the last thirty or forty years of the changes alluded to, have seen many remedies, therapeutical ideas, and pathological theories rise higher than they ever ought to have risen, and, on the other hand, have seen them fall lower than they deserved to fall. The tendency has been, and still is, to an extreme sweep of the pendulum.

Those who practised our art forty or forty-five years ago will remember the beginning of the decline of the great and

overshadowing therapeutic agent, *bloodletting*. Previous to that period no acute inflammation or congestion escaped the lancet or scarificator or leech. If a young practitioner was so unfortunate as to lose a case of pneumonia or peritonitis in which he had not bled his patient profusely and repeatedly, he was in danger of being accused by his medical fathers and nursing mothers of allowing his patient to die. The young doctor was set down as timid and inefficient: he was not to be trusted. The wise and designing Sangrados could "sit down on him" in cool assurance that they would be sustained by the laity; for, notwithstanding the rising prejudice against the excessive use of the lancet and other powerful agents, the rank and file of the people still blindly worshipped the "bold practitioner," while the cautious young physician was often looked upon as a skulker.

As time wore on, however, a better system of clinical study began to prevail; empiricism gave place to a more thoughtful method of observation, which resulted first in the diminution of the amount of blood lost by patients, and finally in the number of cases in which it was thought that bloodletting was required in any measure. The laity also began to have opinions. Slowly the fashion began to gain ground of rejecting the lancet except in extreme cases, until at last venesection, instead of being the rule, became between 1850 and 1860 the rare exception. This change, however, did not in that period become alike complete in all localities.

The unpopularity of the lancet in pneumonia—croupous pneumonia—arose from its outrageous abuse in former times. Its use and usefulness as an adjuvant of other antiphlogistic means in the early stages of this disease have been forgotten or overlooked by those who were in practice thirty-five years ago. If they will recall the prompt relief which they witnessed from an effective but judicious bloodletting, supplemented by the proper administration of antimony, they will wonder how they ever came to wholly abandon the treatment. The substitution of veratrum viride for antimony, much as it is desired on theoretical grounds (after the overburdened heart has been relieved by the abstraction of a portion of the circulating fluid), is a decided advance in the therapeutics of pneumonia. But, like the lancet and tartarized antimony, it is a powerful

remedy and is to be used with judgment, and when so used will help to limit the inflamed area as well as its duration, notwithstanding the fact that pneumonia in a certain but very limited proportion of cases suddenly subsides by crisis on the seventh or eighth day. That we do cut short—or, as the French say, *jugulate*—pneumonia in a fair proportion of cases under the plan above indicated is a clinical fact too well known to be doubted, especially by those whose reaction from the extreme practice of other days was only moderate.

Dr. Post, in allusion to the lower percentage of deaths from pneumonia treated by the modern methods, very justly remarked that no reliance could be placed on statistics, as they were chiefly drawn from a class of patients found in hospitals, who had been badly clothed, badly housed, and badly fed all their lives, and such statistics were not reliable guides. And a little reflection will show any one that in such a class of patients the modern expectant plan of management of pneumonia would show a better percentage of recoveries than the spoliative treatment of former times. But with the judicious use of the lancet among the healthy denizens of country villages and a farming population, I venture the opinion that the favorable percentage of recoveries would be recorded on the other side. If a name is treated instead of a condition, we must expect disappointment in the results.

Among modern writers, Dr. Henry Harts-horne, of Philadelphia, took a most sensible view of this whole question. He gave as reasons for the fact that bloodletting has more opponents than defenders now than at any earlier period in medical history: 1st, the reaction from the previously-existing abuse of the remedy; 2d, a change in the average human constitution (in large cities especially) occurring under the artificial habits of civilized life; 3d, false construction and misapplication of recent science; 4th, leadership and fashion. And he might have added a fear on the part of the practitioner of the prejudices of the community and of becoming unpopular if he should bleed and blister, notwithstanding the soundness of his convictions as to the value or necessity of these measures.

By the timely and suitable letting of blood we lessen, for a time at least, the fulness of the blood-vessels, the number of the red corpuscles, the force of the

heart's impulse and of the arterial impulse, and the excitement of the nerve-centres. "By all these influences," Dr. Hartshorne remarks, "we diminish the vascular excitement connected with an inflammation, and thus lessen the amount of the resultant exudation, and render its history more normal and its changes less degenerative and destructive."

I need only refer again to the comparative percentage of deaths under the old plan of indiscriminate bleeding in the treatment of inflammations, especially of pneumonia, as compared even with the expectant plan, to show you that, if we study the figures alone and not the facts which generate or make the figures, we may still harbor the delusion that "figures don't lie"; but, if we honestly compare facts *and* figures, we shall see how unreliable are some statistical tables, and how fully figures *do* sometimes lie.

I have alluded to tartarized antimony as one of the agents resorted to in the treatment of inflammation, and especially pneumonia. Before the introduction of veratrum viride, which began to be more especially noticed by Dr. Norwood, of South Carolina, about thirty-five years ago, although mentioned by Bigelow, Tully, and others twenty years earlier, antimony was the sedative generally relied on; but, after a timid probation of a few years, veratrum viride acquired very generally the confidence of the profession, and tartarized antimony was forgotten. That antimony was nearly as often abused as the lancet is a fact recognized by those familiar with its literature, or who thirty or forty years ago were obliged to rely on it as a sedative,—the synergist or adjuvant of bloodletting. But the abuse of such a potent and reliable antiphlogistic was not a sound reason for its neglect or rejection. It is true that it is still used in combination and as an emetic in croup; but its valuable properties in the various forms of pulmonary inflammation are not often recognized, or are forgotten. In some conditions it cannot take the place of veratrum, and yet it is spoken of by some recent writers as "the most powerful antiphlogistic (arterial sedative) medicine." This is high praise, but a little excessive; for, by all odds, it is greatly excelled by veratrum viride as a cardiac sedative.

It seems not to be very generally known that tartar emetic is one of our most effi-

cient agents in promoting parturition. When the pulse is tense, the os rigid, the skin dry and hot, the advance of the head slow, I have seen by the use of small doses of antimony, the most prompt and happy change for the better. The pulse softens, the skin becomes moist, the rigid os relaxes, the vagina becomes bathed in a plentiful supply of mucus, and the uterine contractions hasten on to a speedy termination of the labor.

It is not a substitute for ergot, but it has properties which make it much oftener available as a means of hastening labor to a happy termination. If the dose can be so graduated as to produce its effect as a parturient just short of nausea, and especially short of vomiting, the effect seems to be better than where vomiting occurs.

In this connection I may allude to the very general neglect or abandonment of emetics, except as simple evacuants of the stomach and air-passages. Thirty or forty years ago, one class of irregular practitioners were notorious for their frequent and empirical use of lobelia emetics, which they generally administered in person, in order, perhaps, to be in readiness to counteract the drastic violence of this agent should mischief threaten to occur, as it frequently did. This abuse of emetics, as well as the increasing prejudice against strikingly potent measures of all sorts, probably had its influence in inducing physicians to restrict emetics to their use as evacuants simply. But emetics for the purpose of evacuating the bile-ducts and stimulating a torpid liver to a more healthy performance of its functions, and at the same time exerting an "alterative" effect on the glands of the stomach and intestines, are not as often resorted to as formerly. They often relieve in a most evident manner that condition which, for want of better name (and we scarcely need a better one), we call *biliousness*. But the physician who will, even "semi-occasionally," resort to emetics with all proper precautions is in danger of being branded a "fogy." Yet, with the proper restrictions and precautions, we know that they are powerful for good. Shall we be brave enough to use them?

Fashion in medicine is shown in a marked degree in the change of professional opinion, or rather of practice, in the use of blisters in chest-affections. Rubefacients and poultices are relied on when active vesication should be resorted to, especially if there is

pleuritic pain in indicating a simple pleurisy or one complicating pneumonia. Of course, the other depleting and sedative measures should accompany or precede the blister. It is a powerful adjuvant to other antiphlogistic measures, even when resorted to early in many cases of pneumonic inflammation, and, as I intimated before, where pleuritis is an early and marked complication. I am fully aware that this is not the doctrine or the practice of the profession at the present time, and that I shall be criticised for holding this view. If rubefacients will contribute to the reduction of pain, vesicants will more surely reduce the pleuritic inflammation, and thus help to arrest the limit and amount of pulmonary engorgement, and not add to it, as we are taught to believe. One distinguished writer on the practice of medicine objects to the early use of blisters in pneumonia, in part because it interferes with the physical exploration of the chest, rendering it difficult to follow the progress of the exudation,—as though the object of the blister was not, with the other remedial measures, to help to arrest and limit that exudation.

In pleuritis I am positive that we withhold one of the most potent measures for its arrest and reduction if we do not at once resort to liberal vesication.

Even in the progress of tubercular phthisis I believe that we may protract the lives of some patients and add to their comfort by attacking the local pleurisies that occur from time to time in the progress of the case by small blisters, thus arresting the inflammatory condition beneath and preventing the early softening and breaking down of tubercular deposits at the seat of pain. I am sure that in several instances I have thus postponed the inevitable, and that without debilitating the patient.

I am aware that the tendency of advanced life is to conservatism; but then there need be no bigotry if the individual has continued to cultivate his art and its literature during his accumulation of years. He will, however, be better able to point out that which is of permanent value in former views and practices, but which in the rush of new discoveries and inventions is liable to be forgotten or neglected.—*Phila. Med. Times*, Sept. 18, 1886.

Battle (S. W.) on Paracentesis Pericardii.—Samuel Reynolds, brick-

mason, white, aged sixty, native of Georgia, admitted to Mission Hospital, Asheville, N. C., July 21, 1886.

Patient was of good physique, fairly well nourished. Gave vague history of rheumatism several years ago. He has been ill for a month, his health generally having failed him. He complained of ill-defined pains in left half of trunk from shoulder to hip, front and rear, but there were no subjective symptoms pointing to the heart or its envelope. Upon inspection the facies was observed to be anxious, the respiration hurried and superficial. Closer examination elicited a much enlarged area of cardiac dulness; heart sounds muffled, distant, and feeble; pulse intermittent and barely perceptible at the wrist, at times not at all so; hands and feet cold, and a clammy sweat was upon the brow and extremities. The diagnosis of effusion into the cavity of the pericardium, with imminent heart paralysis, was confirmed, and it was decided to aspirate, and that right quickly. Consent of patient being gained, a valvular incision was made in the skin, in the fifth intercostal space, at a point corresponding to the normal apex beat, this being about the centre of the pyriform tumor made by the distended pericardial sac; a medium-sized aspirating needle, attached to the exhausted graduate, was introduced into the tissues and the stop-cock at once opened, that the fluid may start immediately upon the needle reaching the sac. Straw-colored fluid, to the amount of 17½ oz., was withdrawn with the most gratifying results. The pulse returned to the wrist, the heart-sounds, though still muffled, were easily distinguishable the one from the other; the breathing was easier; the whole aspect of the man changed. A glass of whiskey and water was ordered, and the following, to be commenced at once:

℞	Digitalis tincture . . .	3 j.
	Jaborand. ext. fl. . . .	} aa 3 j.
	Tongaline	

Sig.—Teaspoonful every four hours.

After three weeks there were no signs of reaccumulation of fluid in the pericardial sac. By noon of the day following the exhibition of digitalis, jaborandi, and tongaline, nausea and diaphoresis were produced, and the medicine was given less frequently. Two days later, tincture digitalis and fluid extract of *stigmata matidis* replaced other medicine, and these, in conjunction, are

still continued. The heart-sounds have cleared, but are not normal, some degenerative change in the valves and walls having been probably taking place for some time.

The first sound lost its booming quality, having become short and valvular like the second, and now and then intermittent; no indefinable murmurs. Patient is comfortable, sleeps well, breathes easily and naturally, eats well, and takes daily exercise without discomfort. In fine, there seems no reason why he should not regain his former moderately good health.—*North Car. Med. Jour.*, Sept., 1886.

Field (H. M.) on the Treatment of Constipation.—There are some general facts in the employment of special cathartic materials, of which the following must serve as illustrations; and the more of such the practitioner may have at command the less often will he commit a deplorable error.

The salines do not commonly agree with the aged—they find them too chilling; and a dose of Epsom salts, which may operate very kindly upon the young and middle-aged and vigorous, may bring serious disaster to the old man or old woman. A sudden depression of vital energy and the function of calorification thus procured, together with other favoring circumstances, have more than once precipitated the subject into a fatal pneumonia.

All cathartics are apt to be attended with colicky complications when given to a woman at the epoch of menopause; and especial combination at such time, as with carminatives, should be directed against this painful action. Some of the textbooks or lectures used to report the case of a young doctor who was dismissed with contumely from a prominent family, upon which he had chiefly depended for the advance of his fortune, because of offence given to the alimentary canal of a matron, through neglect of this precaution.

The common domestic cathartic, senna, should never be prescribed to the subject of cumulative constipation or of impacted fæces; if there be any thing answerable to a fæcal plug formed in the course of the small intestine or near the valve, on either side, such a peristaltic cathartic as senna will infallibly occasion serious and even alarming colic before evacuation can be accomplished; and the same restriction

applies to a similar use of an integral dose of calomel.¹

To make affirmative provision for the subject of the last restriction, in a case of impacted constipation, when it is to be presumed the bowels are more or less distended with hard, dry, knotty, scybalous masses (and the more imperatively if there be suspicion of complicating typhlitis or perityphlitis), nothing works so safely and so well as Epsom salts, possibly energized with minute doses of tart. emetic, gr. $\frac{1}{8}$ to $\frac{1}{4}$. Or if it be desirable to apply a cautious peristaltic stimulant in this condition, or in whatever condition declares absence of organic contractility in the bowels, nothing else can be so direct in operation as gr. $\frac{1}{4}$ sulph. strychn., inserted once or twice in the twenty-four hours in the areolar tissue of the abdominal wall.

There is apparent perplexity in providing cathartic medication, whether on occasions of temporary or habitual constipation, for the subject of a prevalent uterine hemorrhage—i. e., menorrhagia or metrorrhagia. Of course, aloetics are absolutely contra-indicated, and senna and cascara no less absolutely; unless, indeed, in the exceptional instance where such a remedy as ergot is required. But there is a cathartic, or laxative cathartic, which deservedly has the reputation of exerting somewhat of inhibitory influence upon hemorrhage from the womb, viz.: cream of tartar. It would be hard to name another which, in its action upon the bowels, arouses so little of peristalsis; and it is not possible that cream of tartar, in any degree of action, should stimulate uterine muscles to contraction; while its tendency to reduce temperature, and especially to lower blood pressure, should work favorably for the arrest of hemorrhage from whatever course.

The last section of our subject contemplates, if not the cure of habitual constipation, at least an escape from its discomforts and injurious influence upon health, by the systematic use of water-enemata; but its discussion must be postponed for want of time. It may be said, however, in closing, that loose and errone-

¹ NOTE.—An infusion of senna may, however, be administered as enema when the torpor and distension are mainly located in the large bowel, both safely and effectually. The excitant influence of senna over organic muscular fibre of bladder, and uterus also, was perhaps more familiar to physicians of an older school than to those of the present day.

ous notions prevail to an extent among the profession even, respecting the value of the consequences of this measure of relief. The rectal syringe, like the uterine pessary, may do incalculable mischief; suitably, appropriately, strictly, and intelligently controlled, it may be of incalculable benefit. In either instance, there must be selection of cases and considerate adaptation. In no other department of medical practice is the tyro in medicine more out of place, as well as the physician who gives but a passing thought to the condition for which he is called to prescribe.—*Four. Am. Med. Ass'n*, Sept. 11, 1886.

Bailey (J. S.) on Multiple Synovitis in Typhoid Fever.—In the fall of 1885 (a very dry season) I attended a family, including a man, wife, two daughters, and two sons, the youngest eighteen years old, for typhoid fever.

Out of the six patients but one died—Patrick, the father, aged sixty-seven years. In four of the patients the disease ran a typical, but comparatively mild, course. In the boy above mentioned, who is a cripple of two years' standing, with an ankylosed knee from rheumatic synovitis, a considerable intestinal hemorrhage occurred on the twentieth day, but soon afterward the tongue became moist and clean, the motions were perfectly formed, the appetite returned. In these cases the antipyretic value of quinine was preëminent.

The main object of the present paper is to call attention to the case of Ben, twenty years of age, in which there was a unique and rare complication in the seventh week of *multiple joint pains*, which have been likened to rheumatism, but until there is a clearer insight into their nature we cannot accept their similarity. From the beginning to its termination the case was of extreme severity. His sickness began fourth in order. He was frightened, and battled manfully to keep on his feet. He prescribed for himself large doses of whiskey, quinine, calomel, purges, and Crab Orchard salts, but to no avail.

During the first week he had a bronchial catarrh, with a pleuritic stitch of such severity as to require morphia hypodermically. There was nose-bleed every day. Delirium came on early. The temperature exhibited regular morning and evening variations, each evening being about two or three degrees higher than that of the morning. The second and third week the

temperature was at its maximum, and during the middle of the latter period stupor was most marked. While the remissions were somewhat more manifest, there was exhibited a most unusual and (to me) unequal disproportion between the pulse and the temperature. The pulse became abnormally slow from having been very fast, running down as low as 40, and it did not rise above 60, for seven or eight days, when again it assumed a rather quicker action, but not to be compared with that in the first days of his illness. The thermometer in the axilla during this slowness indicated, morning, 102° Fahrenheit; evening, 103° or 104° Fahrenheit. This abnormality was alarming, but, considering it due to an organic change in the muscular structure of the heart from the continued-fever poison, I increased the dose of infusion of digitalis, gave alcohol unsparingly, and added to the $\mathcal{R}$ tinc. nucis vomicæ. These remedies while not increasing the rate, added materially to the tone and volume, of the pulse.

A miserable bed sore over the sacrum now began to give annoyance. The slough which came from it was as large as a saucer. The fourth week found the mind out of time, incoherence and subsultus very marked, with loss of hearing on the right side, due to suppuration of the middle ear. He was hanging in the balance. In the sixth week he began to improve; all signs were hopeful. Subsidence of diarrhœa and tympanites; tongue became moist and intelligence fully returned; the temperature had almost returned to the normal; some desire for food; he was taking cognizance of people and things. On the forty-seventh day I was hurriedly called to see him in the early morning; was told he had had a hard chill during the night; the temperature was 104° Fahrenheit, though he had sweat profusely. The stomach was much disturbed; the pulse so feeble and the prostration so great as to create fears of his being quickly taken off. He was suffering agonizing pains, the legs were drawn up, the knees bent at an acute angle, and I suppose that either peritonitis or perforation had taken place. The fever was intense; breathing quickened; there was jactitation. I remained all day and at night. By next morning he was apparently better. When the time for the toilet of the bed sore came, it was seen that he could not be moved, his knees were quasi-

anchylosed. A more critical examination showed that both knees, both ankles, and both tarso-metatarsal articulations were inflamed and intolerant of the least pressure. He had pain in his left breast, a teasing cough, the sputa streaked with a little blood; his breath was offensive and the tongue highly coated. Later in the day the left hip became very sore, and by nightfall both elbows and wrists were involved. The swelling was marked by considerable cutaneous redness and puffiness, the œdema beneath the surface making it look as though an abscess was lurking. This was a novel complication—a clinical feature I had not seen mentioned in any monograph or text-book on typhoid fever.

The position of the patient was characteristic of acute articular inflammation. He winced and whimpered at a slight touch, but there was marked pain on deep and continued pressure. After reflection, in vain searching through the books, I diagnosed the complication as a *multiple synovitis*, involving simply the synovial and periarticular tissues; that it was pyæmic in its nature; that the intestinal ulcerations gave rise to absorption into the blood of the materies morbi, and that, while it bore a strong resemblance to, in reality it was not, rheumatism. The inflammation speedily subsided, but the articulations for many weeks were quite tender. The treatment was essentially constructive—generous wines, pure mountain brandy, freshly drawn milk, substantial soups, the enforcement of absolute rest, and last, but not least, quinine.

The "malignant influence," about which Stokes, of Dublin, has talked so much, played in this instance almost too preponderating a rate for art to overcome; but the subject is to-day an example of a patient cured by "preventing him from dying."

The literature upon this subject is meagre. While synovitis during typhoid fever is a sufficiently rare affection, it is true that two forms of it occur in connection with the disease—the uni- and the multi-articular. The non-articular disease is local, and is regarded by Barwell as a specific part of this fever, and many cases from various sources are reported. The multi-articular is a rarer event, though several well-authenticated cases are mentioned in current medical literature; it is constitutional, occasions more suffering, and its

termination is not always a happy one.—*The College and Clinical Record*, Sept., 1886.

McKinnon (K.) on Typhoid Fever Complicated with Septicæmia.—Miss

A. B., a maiden lady, aged fifty-four, a dressmaker, who had been suffering more or less from dyspepsia, biliousness, and constipation for several years, complained of headache and fever the 9th of July, 1885. She first took some cathartic medicine, but the headache and fever continuing from day to day, I was called to see her the fifth day of her illness. I prescribed a cathartic and quinine to be taken two days with the view of breaking the fever, thinking that possibly it might be of malarial origin. I visited her again the seventh day of her fever in the afternoon, and found her pulse 80, temperature 103°, and tongue covered with a thin white fur, still complaining of headache and loss of appetite. The cathartic had acted sufficiently but the quinine had had no effect on the fever. I diagnosed the case to be typhoid fever. As I had nothing better I prescribed fifteen-grain doses of salicylate of sodium as an antipyretic every two hours, until the temperature would be brought down to about 100°, when it was to be discontinued, and again given when the temperature rose above 102°. Sponging with cool water was also used at times to promote comfort and to keep down heat of the skin. The salicylate produced so much nausea that, after two days' use, it was discontinued (about six doses were given); the sponging was still used when necessary to moderate the temperature. Enemata of cool water were used once or twice a day to cool the bowels and keep them acting, as they were more inclined to constipation than diarrhœa.

During the ten or twelve days following there was very little change in her general symptoms. The pulse was from 80 to 86, and temperature from 100° to 103°. She took food with a fair appetite about every four hours, either milk or meat broths, and a half ounce of whiskey before meals. I gave her little medicine. Part of the time I gave her ten or twelve drops of oil of turpentine, or drachm doses of spirits of nitre every four hours. There was no tenderness in the bowels and little tympanites. The appearance of the tongue improved, and became almost normal, except a little flabby.

She slept the greater part of every night,

and took naps through the day. Her strength was tolerably well preserved. She could get out of and into bed with a little assistance.

On the eighteenth day of the fever, at 7 o'clock P.M., her pulse was 86 and temperature 101° . Her general condition was about the same as it had been for a week past. I did not see her the following day, but visited her at 9 o'clock A.M. the next, the twentieth day of the fever. I discovered at once a change for the worse. I found her pulse 90, temperature 103° . Her nurse informed me that her fever had been somewhat higher the preceding day than it had been for several days, and she slept less than usual the night before. I tried the salicylate of sodium again, together with the sponging, to reduce the increasing temperature. She had been using ice and iced water for several days. The same day at 3 o'clock P.M. I was hastily called to see her, and found her suffering from greatly increased fever, with violent rigors, pulse 125, and temperature 105° .

The fever gradually subsided that evening, followed by a free perspiration. I gave quinine the two following days, and there was no more return of the rigors, but there was a very marked change for the worse in all her symptoms. The day after the pulse went down to 90, but gradually increased in frequency and lost in strength. The temperature also lowered, but during the following week it fluctuated from day to day, sometimes as high as $103\frac{1}{2}^{\circ}$ and then down to 100° , but with no regularity. An aperient was given the evening the rigors occurred, and the bowels were freely moved. The passages after this became very offensive, notwithstanding the bowels were kept freely moving by means of aperients and enemata. I gave her resorcin as an antiseptic for three days without any effect in correcting the offensive smell of the passages. From the evening that she had the rigors, subsultus was so violent and constant as to greatly interfere with her resting. She had none of it before the relapse. Her tongue became coated with a brown fur; sordes accumulated on her teeth and lips. There was complete anorexia. Small quantities of food were retained, but the whiskey, brandy, and medicines were rejected. The stomach became almost intolerant of every thing. Her strength rapidly failed; her jaw dropped when dozing; there was great apathy and

dulness in her expression, and marked lethargy. I noticed that she eructated occasionally before the relapse, but frequently afterwards. The bowels became quite tympanitic, without much tenderness. The skin was constantly moist, but no free perspiration until a day or two before death, which occurred on the twenty-eighth day of the fever.

Instead of giving the daily symptoms of this case, I have thought it best to group them, as they were very uniform, into the two periods, before and after the relapse. I wish to call special attention to the sudden and unexpected symptoms developed on the twentieth day of the fever from a condition indicating no great danger to one of the gravest without any very obvious cause. She was carefully nursed. I do not believe the exacerbation of fever and violent rigors, which occurred on the twentieth day of the fever, were caused by malarial poison. She had been living for several years in this village, where there is so little malaria that it is a rare thing for any one living here to have a mild attack of intermittent fever. How, then, are we to account for this exacerbation and relapse? In my opinion it was a case of septicæmia, caused by septic matter in the bowels being absorbed into the system through the denuded or raw surfaces of the enteric glands after they had cast off their sloughs in the course of the typhoid disease. Her food was almost entirely of milk and meat broths, taken at regular intervals, in such quantity as it was thought she could digest. The probability is that she took more than was digested, and that it was retained in the bowels too long, until septic changes supervened, and the poison there developed was then absorbed into the system. I have been in the habit of giving iodine and carbolic acid in typhoid fever for their antiseptic properties, but did not in this case. I now think that if I had given some antiseptic, and a few doses of castor oil between the tenth and twentieth days of the fever, to clear out the bowels, the termination of the case might have been different. Her bowels were inclined to constipation before the relapse, but afterwards were easily moved. At no time was there much diarrhœa.

In the spring of 1853 I treated a case of pyæmia in a young man just convalescing from a violent attack of typhoid fever. It was manifested by the formation of cold

abscesses in the subcutaneous cellular tissues in the different parts of the body. That case of pyæmia and this with well-marked symptoms of septicæmia are the only ones of their kind that have come under my observation in a regular practice of thirty-four years, in which time I have had a fair proportion of typhoid fever to treat. No doubt many patients were affected with the poison of septicæmia in a mild degree, or the symptoms of it were so obscured by other complications that they were not duly appreciated in the treatment.

It is only of late years that autoseptic poisons have been carefully studied, so that it is not surprising to find so little in the books about them. But now that they are known to exist, though their true character may not be satisfactorily ascertained, the important consideration with the practitioner is how to prevent them. The indications to prevent this particular accident or complication would seem to be to keep the bowels gently moving by aperients when there is a tendency to constipation, and to use antiseptics to prevent or to correct septic changes taking place in the contents of the bowels.—*Therap. Gaz.*, Aug., 1886.

Vaughan (V. C.) on Tyrotoxicon; Its Presence in Poisonous Ice-Cream; Its Development in Milk.—About one year ago, and after two years of close investigation, the writer succeeded in isolating from some samples of cheese, which had produced alarming symptoms in many persons, a highly poisonous ptomaine, to which the name tyrotoxicon (cheese poison) was given. The effects of this poison were demonstrated repeatedly upon some of my students and upon myself. The most prominent symptoms were dryness and constriction of the fauces, nausea, retching, vomiting, and purging.

The vomited matter was frothy and the stools watery. In some there were evidences of marked nervous depression. Although in many cases the condition seemed alarming, all finally recovered.

A report of the discovery of tyrotoxicon in cheese will be found in *Zeitschrift für physiologische Chemie*, B. X., Heft 2; also in the *Annual Report of the Michigan State Board of Health*, for the year 1885.

Last November a student brought to me a four-ounce bottle partly filled with milk which had stood tightly closed with a glass stopper for about six months. From this

I succeeded in isolating the same poison. It was recognized by its crystalline appearance and by its effect upon myself. It was presumed that this milk was normal in composition when first obtained; but of this we could not be certain.

I then put several gallons of normal milk in perfectly clean bottles with glass stoppers, and allowed these to stand in my work-room. From time to time a bottle was opened and the test for tyrotoxicon was made. These tests were followed by negative results, until about three months after the experiment was begun. I then succeeded in getting the poison from one of the bottles. The method of testing for it was as follows: The coagulated milk was filtered through heavy Swedish filter paper. The filtrate was colorless and decidedly acid in reaction. It was rendered feebly alkaline by the addition of potassium hydrate, then agitated with ether. After separation the ethereal layer was removed with a pipette, allowed to run through a dry filter paper to remove a flocculent white substance which floated in it, and then allowed to evaporate spontaneously. If necessary this residue was dissolved in water and again extracted with ether. On the evaporation of the ether the tyrotoxicon was recognized by its crystalline appearance, by its odor, and by placing a small bit on the tongue. As the ether takes up some water, there is usually enough of the latter left after the spontaneous evaporation of the ether to hold the poison in solution, and in order to obtain the crystals this aqueous solution must be allowed to stand for some hours in vacuo over sulphuric acid.

From one half gallon of the milk there was obtained quite a concentrated aqueous solution of the poison after the spontaneous evaporation of the ether. Ten drops of this solution placed in the mouth of a small dog three weeks old caused, within a few minutes, frothing at the mouth, retching, the vomiting of frothy fluid, muscular spasm over the abdomen, and after some hours watery stools. The next day the dog seemed to have partially recovered, but was unable to retain any food. This condition continuing for two or three days, the animal was killed with chloroform. No examination of the stomach was made.

It may be remarked here that I have elsewhere pointed out the necessity of using pure ether for these extractions, as some

samples of ether contain an irritating ptomaine-like substance.

On June 13, 1886, I received from Dr. Henry B. Baker, Secretary of the Michigan State Board of Health, a pint bottle about two-thirds full of melted ice-cream, with the request that I would analyze it, as some eighteen persons had been seriously affected by eating of it. Dr. Baker also sent some of the vanilla which had been used as flavoring. It was thought that the poison would be found in the vanilla, because some lemon ice-cream furnished at the same gathering had not affected those who ate of it. As the readiest means of deciding this my assistant, Mr. Novie, and myself took at first thirty drops each of the vanilla extract. No ill effects following this, Mr. Novie took two teaspoonsful more, with no results. This settled the question of the poisonous nature of the vanilla more satisfactorily than could have been done by a chemical analysis.

We then added some distilled water to the cream, and, after thorough agitation, filtered it. The filtrate was tested for tyrotoxin by the method already given. The aqueous solution, after the spontaneous evaporation of the ether, was given to a cat. Within ten minutes the cat began to retch, and soon it vomited. This retching and vomiting continued for two hours, during which time the animal was under observation, and the next morning it was observed that it had passed several watery stools. After this, although the cat could walk about the room, it was unable to retain any food. Several times it was observed to lap a little milk, but on doing so it would immediately begin to retch and vomit. Even cold water produced this effect. This condition continuing, after three days the animal was placed under ether and its abdominal organs examined. We certainly expected to find marked inflammation of the stomach. But we really did find the stomach and small intestines filled with a frothy serous fluid, such as had formed the vomited matter, and the mucous membrane very white and soft. There was not the slightest redness anywhere. The liver and other abdominal organs seemed to be normal.

It should be remarked that this cat was about two months old. Attention is called to this, because young animals are affected by this poison much more readily than older ones. It requires a comparatively

large amount of the poison to cause any marked symptoms in an old cat.

After having made these experiments I received from Dr. R. C. Moffitt, of Lawton, Mich., the following letter :

"LAWTON, Mich., June 21, 1886.

"I understand from Professor Chas. Lawton, of this place, that the cream sent to Lansing for examination has been forwarded to you, so I write to give you the particulars. About two hours after eating the cream, every one was taken with severe vomiting, and after from one to six hours later, with purging. The vomit was of a soapy character, and the stools watery and frothy. There was some griping of the stomach and abdomen, with severe occipital headache, excruciating back-ache, and 'bone' pains all over, especially marked in the extremities. The vomiting lasted from two to three hours, then gradually subsided, and everybody felt stretchy, and yawned in spite of all resistance. The throats of all were œdematous ; one or two were stupefied ; others were cold, and experienced some muscular spasms. A numb feeling, with dizziness and momentary loss of consciousness, was complained of by some. Temperature was normal, and pulse from 90 to 120. Tongue, dry and chapped. All were thirsty after the vomiting subsided, and called for water, which was allowed in small quantities, with no bad results. After getting out, no one of the victims was able to be in the hot sun for several days, and even yet (about ten days after the poisoning) the heat affects myself. I attended twelve persons, besides being sick myself, and all were affected in pretty much the same way. Several complain yet of inability to retain food on the stomach without distressing them. The man who made the cream took a teaspoonful of it, and he vomited the same as those who ate a whole dish, but not so often nor for so long a time. All are affected with an irresistible desire to sleep, which can scarcely be overcome. Even yet, some of us feel that drowsy condition, with occasional occipital headache." •

It will be seen from the above that the symptoms produced in the persons agree with those observed in the cat. Cases of poisoning by ice-cream are by no means rare, and I hope that those who have the opportunity will not fail to test for tyrotoxin. In the report of the Brooklyn Board of Health for 1885, an instance is

given of the poisoning of more than one hundred persons from ice-cream sent out from one restaurant. The chemist was unable to detect any mineral poison. The injurious results were attributed to the use of decomposed gelatin, but no gelatin of any kind was used in the Lawton cream. Other cases occurring in New York and Brooklyn have been attributed to the employment of artificially prepared vanilline for flavoring, but the vanilla extract used in the Lawton cream was not poisonous, as has been shown.

The circumstances under which tyrotoxin develops requires further study. As has been shown above, it may develop in normal milk, kept in a clean bottle for three months; but it is evident that in some instances it appears much earlier. The production of the ptomaine is, in all probability, due either directly or indirectly to the growth of micro-organism. In the cheese, Dr. Sternberg found a new micrococcus, but whether or not there is any relation between this organism and the poison remains to be determined. In the cheese, milk, and cream, in all of which I have found the poison, there was present more or less butyric acid, and it may be that there is some intimate relation between butyric-acid fermentation and the production of the poison. The writer has not been able to obtain the poison as yet in quantities sufficient to enable him to make an ultimate analysis of it. But that it is a chemical body produced by fermentation there can be no doubt.

If there be any doubt about the poison being produced by fermentation, the following experiment would seem to clear it up:

On June 26th, I took two samples, of one pint each, from a bottle of milk which had already undergone the lactic-acid fermentation. These samples were placed in clean glass graduates. To one, a piece of the solid portion of the poisonous custard, about the size of a filbert, which had been washed with distilled water, was added. To the other, no addition was made. These samples stood side by side for forty-eight hours. Both were then tested for tyrotoxin. The one to which no addition was made gave no crystals, no odor, and when given to a cat, produced no effect. The one to which the addition had been made yielded crystals, which had the odor of tyrotoxin, and which, when

given to a very large, old cat, produced frothing at the mouth and retching, but no vomiting or diarrhoea, and the next day the animal was able to eat food, and seemed to have recovered. I am quite certain that, had this been administered to a young animal, the result would have been more marked.

It is well known that milk, while undergoing the lactic-acid fermentation, does not possess any such poisonous properties as those belonging to tyrotoxin. There is no evidence, then, that the poison is connected in any way with the ordinary decomposition of milk.

That the poison which I found in the cream was the same as that which affected the people cannot be doubted after comparing the symptoms produced in the cat with those observed by Dr. Moffitt, and as has been stated, the experiment on the cat was made before I received the letter from Dr. Moffitt.

To one quart of night's milk a piece of the solid portion of the Lawton cream, about the size of a filbert, was added. This residue had been left in the filter paper ever since the analysis of the poisonous cream, June 14th, and it was on June 8th that the first milk for the preparation of the Lawton cream was collected. This dried and hardened lump was crumbled into the milk, which was placed in a clean tin pan and set in a cool cellar. July 9th. —To a quart of morning's milk another small bit of the infected material was added, and this milk was placed in the cellar. At 1 P. M. both portions of the milk were poured into a clean earthenware jar, and four fresh eggs beaten, and one pint of granulated sugar were added. The whole was thoroughly agitated, then allowed to stand at the temperature of the room until 4 P. M., when it was placed in the ice-box of a refrigerator, surrounded by ice, and here kept until 7 A. M., the next morning, July 10th. Then three ounces of the custard was stirred up with distilled water, filtered, the filtrate rendered alkaline and agitated with ether. The residue, on the evaporation of the ether, was dissolved in a little water and given to a kitten about two months old. Immediately the kitten manifested the symptoms of poisoning by tyrotoxin, which have already been described. I began the analysis of this custard in the morning before having my breakfast, and getting a little on my finger,

carrying the jar, I tasted of it. Within a few minutes I was nauseated, and ten minutes after taking it I vomited. The prompt action of so small a quantity was probably due to the condition of my stomach. At 2 P. M. of the same day I took one teaspoonful of the custard. Within thirty minutes there was marked nausea and some violent retching, but no vomiting. At 3 P. M., the symptoms having abated, I took a tablespoonful more of the custard. At about 3 30 I began to vomit freely. The nausea continued for about an hour. After this there would be passing sensations of sickness. At 8 P. M., while visiting a patient, I was taken very suddenly and sharply with nausea and griping pains in the abdomen. I again vomited and had one watery stool. After this there was no farther trouble. The occipital headache, mentioned by Dr. Moffitt in his letter, was very marked for some hours after taking the custard. It consisted of sharp, lancinating pains which were confined wholly to the occiput. The nausea was peculiar. I cannot say that there was pain in the stomach. A sickening taste would be felt in the mouth and a peculiar, very sickening odor, which I recognized as that of the isolated poison, would intensify the nausea. The throat and mouth seemed filled with a sticky, tenacious mucus. In short, the effects on these parts resembled those which I have experienced from an overdose of atropia.

I think that this experiment explains the poisonous nature of the vanilla cream. The fermentation going on in the custard, and probably begun in the milk, was arrested in that part flavored with lemon by freezing, which was begun immediately. But while the lemon cream was being frozen that part of the custard which was to be made into vanilla cream continued to ferment, and before the freezing process was begun enough of the poison was generated to seriously affect those eating it.

It should be remarked that in the custard which I made there was nothing peculiar in the taste. It was sweet and pleasant. But while it was not at all acid to the taste, it gave a decidedly acid reaction, as tested by litmus, and was not amphoteric in reaction, as cow's milk frequently is.

It is possible that the presence of the large amount of albumen in the custard, from the eggs, hastened the fermentation. I believe that makers of cheese have found

that a large amount of albumen in cheese renders decomposition more easy.

How the special germ which produces the poison found its way into the Lawton cream I cannot say; but that it was either present in the milk or was contained in the eggs used, I think cannot now be doubted. —*Practitioner*, Sept., 1886.

Newton (W. K.) and Wallace (S.) on Cases of Milk-Poisoning, with Remarks on Tyrotoxicon.—Inquiries concerning the cases of illness at Long Branch due to noxious milk have been so very numerous and solicitous, and the interest manifested in the subject has been so great, that we feel warranted in publishing the following account of the investigation carried out to ascertain the cause of the trouble.

It is seldom that the investigator has the opportunity to trace to its source the milk or other food that has caused sickness, but we have, in these cases, been very fortunate in being able to follow every step in the management of the milk, from the farm to the consumer. In similar cases of poisoning by cheese and ice-cream which have been investigated by Vaughan and others, although chemical analysis has revealed the probable cause, and the toxic substance has been isolated, some link in the chain of evidence has been wanting. But the history we are now to relate seems unique, because every portion of the evidence is before us, and we are able to demonstrate what the injurious material really is, besides offering other proof as to the possible cause of the formation of this substance.

On August 7th twenty-four persons at one of the hotels at Long Branch were taken ill soon after supper. At another hotel, on the same evening, nineteen persons were seized with the same form of sickness. From one to four hours elapsed between the meal and the first symptoms. The symptoms noticed were those of gastrointestinal irritation, similar to poisoning by any irritating material—that is, nausea, vomiting, cramps, and collapse; a few had diarrhoea. Dryness of the throat and a burning sensation in the œsophagus were prominent symptoms.

While the cause of the sickness was sought for, and one week after the first series of cases, thirty persons at another hotel were taken ill with precisely the same symptoms as noticed in the first outbreak.

Drs. S. H. Hunt and Williams, of Long

Branch, attended all the patients on both occasions. Dr. Hunt kindly furnishes the following account of the cases :

"The symptoms were very similar to those of any case of gastro-intestinal irritation. I was impressed with this fact, although there was an unusual absence of diarrhoea in many of the cases. A few would have several active movements and no vomiting, the poison or cause being thus immediately removed ; while in many cases it produced violent emesis, which was followed by collapse and failure of the heart's action. Both occurred in a few instances, but the rule was the persistent and obstinate nausea and vomiting, with a tendency to exhaustion and collapse as seen in cholera. The convalescence and recovery were prompt, and in a few hours all were in their usual health, and no untoward symptoms followed the attack." The remedies employed were those usually indicated in such cases, such as antacids, stimulants, and in a few instances small hypodermatic injections of morphia were administered.

When the news of the outbreak was published one of us immediately set to work, under the authority of the State Board of Health, to ascertain the cause of the illness. The course of the investigation was about as follows :

The character of the illness indicated, of course, that some article of food was the cause, and the first part of our task was to single out the one substance that seemed at fault. The cooking utensils were also suspected, because unclean copper vessels have often caused irritant poisoning. Articles of food, such as lobsters, crabs, blue fish, and Spanish mackerel, all of which at times, and with some persons very susceptible to gastric irritation, have produced toxic symptoms, were looked for, but it was found that none of these had been eaten at the time of the outbreak. The cooking vessels were examined, and all were found clean and bright and no evidence of corrosion was presented.

Further inquiry revealed the fact that all who had been taken ill had used milk in greater or less quantities, and that persons who had not partaken of milk escaped entirely ; corroborative of this it was ascertained that those who had used milk to the exclusion of all other food were violently ill. This was prominently noticed in the cases of infants fed from the bottle

when nothing but uncooked milk was used. In one case an adult drank about a quart of the milk, and was almost immediately seized with violent vomiting followed by diarrhoea, and this by collapse. Suffice it to say that we were able to eliminate all other articles of food and to decide that the milk was the sole cause of the outbreak.

Having been able to determine this, the next step was to discover why that article should, in these cases, cause so serious a form of sickness.

The probable causes which we were to investigate were outlined as follows : (1) Some chemical substance, such as borax, boric acid, salicylic acid, sodium bicarbonate, sodium sulphate, added to preserve the milk or to correct acidity. (2) The use of polluted water as an adulterant. (3) Some poisonous material accidentally present in the milk. (4) The use of milk from diseased cattle. (5) Improper feeding of the cattle. (6) The improper care of the milk. (7) The development in the milk of some ferment or ptomaine, such as tyrotoxin.

At the time of the first outbreak we were unable, unfortunately, to obtain any of the noxious milk, as that unconsumed had been destroyed, but at the second outbreak a liberal quantity was procured.

It was soon ascertained that one dealer had supplied all the milk used at the three hotels where the cases of sickness had occurred ; his name and address having been obtained, the next step in the investigation was to inspect all the farms, and the cattle thereon, from which the milk was taken. We also learned that two deliveries at the hotels were made daily, one in the morning and one in the evening ; that the milk supplied at night was the sole cause of sickness, and that the milk from but one of these farms was at fault. The cows at this farm were found to be in good health, and, besides being at pasture, were well fed with bran, middlings, and corn-meal.

So far we had been able to eliminate as causes diseased cattle and improper feeding, and we were then compelled to consider the other possible sources of the toxic material.

While the inspection of the farms was being made, the analysis of the milk was in progress. The results of this showed that no chemical substance had been added to the milk, that it was of average composition, that no polluted water had been used as a diluent, and that no poisonous metals

were present. This result left us nothing to consider but two probable causes: improper care of the milk, and the presence of a ferment.

As to the former, we soon learned much. The cows were milked at the unusual and abnormal hours of midnight and noon, and the noon's milking—that which alone was followed by illness—was placed, while hot, in the cans, and then, without any attempt at cooling, carted eight miles during the warmest part of the day in a very hot month.

The practice seemed to us sufficient to make the milk unpalatable, if not injurious, for it is well known that when fresh milk is closed up in a tight vessel and then deposited in a warm place, a very disagreeable odor and taste are developed. Old dairymen speak of the "animal heat" as an entity, the removal of which is necessary in order that the milk shall keep well and have a pleasant taste. While we do not give this thing a name, we are fully convinced that the milk should be thoroughly "cured" by proper chilling and aëration, before it is transported any distance or sold for consumption in towns or cities.

This opinion is based on a study of the methods prevalent among experienced dairymen, who ship large quantities of milk to our great cities. The usual practice is to allow the milk to stand in open vessels, surrounded by ice or cold water, for from eight to twelve hours before transportation, and when placed on the cars it has a temperature of from 50° to 60°, and is delivered to the consumers in a perfectly sweet condition. The city of New York receives about 200,000 gallons each day from the surrounding country, and much of it brought in by the railroads has been on the cars for a time varying from six to twelve hours, yet we seldom hear of any of this milk undergoing the peculiar form of fermentation set up in the Long Branch milk. We may account for this by assuming that the proper care of the milk after it was taken from the cow, and the low temperature at which it was kept, have prevented the formation of any ferment; this opinion seems to be endorsed by all dairymen and managers of large creameries with whom we have consulted. They all agree in stating that milk maintained at a low temperature can be kept sweet and in good condition for many days.

We have dwelt on this branch of our

topic somewhat extensively, because we are fully persuaded that the improper care of the milk had much to do with the illness it produced.

The results of our inquiry having revealed so much, we next attempted to isolate some substance from the poisonous milk, in order that the proof might be more evident. A quantity of the milk that had caused sickness in the second outbreak was allowed to coagulate, was then thrown on a coarse filter, and the filtrate collected. This latter was highly acid, and was made slightly alkaline by the addition of potassium hydrate. This alkaline filtrate was now agitated with an equal volume of pure, dry ether, and allowed to stand for several hours, when the ethereal layer was drawn off by means of a pipette. Fresh ether was added to the residuum, then agitated, and, when separated, was drawn off and added to the first ethereal extract. This was now allowed to evaporate spontaneously, and the residue, which seemed to contain a small amount of fat, was treated with distilled water and filtered, the filtrate treated with ether, the ethereal solution drawn off and allowed to evaporate, when we obtained a mass of needle-shaped crystals. This crystalline substance gave a blue color with potassium ferricyanide and ferric chloride, and reduced iodic acid. The crystals, when placed on the tongue, gave a burning sensation. A portion of the crystals was mixed with milk and fed to a cat, when, in the course of half an hour, the animal was seized with retching and vomiting, and was soon in a condition of collapse, from which it recovered in a few hours.

From these experiments with this material, we were able to identify it as *tyrotoxin*, a substance discovered and described by Prof. Victor C. Vaughan, of the University of Michigan.

From a close analysis of the facts in the cases recorded in this article, we are of the opinion that the substance is allied, chemically, to butyric acid; that it is formed in the milk by fermentation; and that its formation may be prevented by keeping the milk at a low temperature; or by properly cooling the milk soon after it is drawn from the cow. It seems, also, important that the so-called "animal heat" be allowed to escape. Boiling may dissipate the poison from milk that contains it; this opinion is based on the fact that tyrotoxi-

con is changed and driven off at a temperature of 180° F.

Conclusions.—We are justified in assuming, after weighing well all the facts ascertained in the investigation, that the sickness at Long Branch was caused by poisonous milk, and that the toxic material was tyrotoxicon.

The production of this substance was no doubt due to the improper management of the milk—that is, too long a time was allowed to elapse between the milking and the cooling of the milk; the latter not being attended to until the milk was delivered to the hotel; whereas, if the milk had been cooled immediately after it was drawn from the cows, fermentation would not have ensued, and the resulting material, tyrotoxicon, would not have been produced.—*Medical News*, Sept. 25, 1886.

On Lesions of the Cornea Following the Instillation of Cocaine.—

Numerous instances have now been recorded in which the use of cocaine has been followed by local ill effects; these may be divided into two classes, namely, suppurative panophthalmitis and lesions of the cornea. The former being, in all probability, due to septic infection, cannot be said to depend directly upon the use of cocaine, except in so far as cocaine increases the absorbent properties of the cornea (a subject that will be considered presently), and direct inoculation occurs from impurities in the solution used.

The cornea lesions which have been observed are of two kinds: (1) an affection of the epithelial layer only, consisting of vesication or desquamation, and (2) interstitial opacities, often taking the form of a kind of striated keratitis extending from the wound.

One of the first to observe the superficial changes was Paul Bunge (*Klin. Monatsbl. für Augenheilk.*, 1885, p. 402), and very many instances have been recorded since. In some of these the case has not been complicated by the employment of any septic solution, a point which, as will presently be seen, is of considerable importance. There can, therefore, be no question that the vesication and desquamation which occasionally follow the use of cocaine are really due to the action of the drug.

With the view of ascertaining how cocaine produces this affect. Würdinger has recently conducted some experiments upon

animals (chiefly rabbits, but also upon dogs and guinea-pigs) (*Klin. Monatsbl. für Augenheilk.*, April, 1886). In addition to the anæsthetic action of cocaine, one of its most marked effects is the dryness of the surface of the eye which it causes; this is probably due chiefly to the anæmia of the conjunctiva and the diminution in the lachrymal secretion from constriction of the blood-vessels; but it is probably increased by the wide opening of the palpebral fissure that usually occurs, and the absence of the natural and involuntary blinking movements.

In order to ascertain how far the changes in the corneal epithelium were due to these causes, Würdinger instilled a drop of a 5-per-cent. solution into both eyes of a rabbit, at intervals of four minutes. The one eye was kept closed between the instillation, but the other remained open.

In the closed eye, no changes whatever took place in the appearance of the cornea. In the other eye, after three or four minutes, slight changes were noticed; these increased, and, in twenty to twenty-five minutes after the cocaine had been commenced, the cornea presented a superficial and fine roughness, as well as depressed areas, which looked as if they were caused by the shedding of the epithelium. After an hour the turbidity of the cornea had increased so much, that the condition of the iris could no longer be made out.

Further experiments showed that the intensity of the changes depended more upon the duration of the experiment than upon the concentration of the solution, or the frequency with which it is applied. By dropping distilled water upon the cornea, between the application of the cocaine, changes which had already occurred were not removed, but their increase was prevented. Microscopic examination of the altered areas showed that the epithelium, where not removed, was thinned out, and that there was also considerable thinning of the layers, of the corneal tissue.

As regards the interstitial opacities of the cornea, Dr. Wood-White (*Ophthalmic Rev.*, Jan., 1886, p. 6) appears to have been the first to suggest that they were due, not to the cocaine itself, but to the simultaneous employment of a solution of corrosive sublimate. He states that he has frequently used cocaine alone, and in conjunction with boracic acid, and has never seen any ill effects arising from it, but that in the

only cases in which he at the same time used a solution of corrosive sublimate (five cases of cataract-extraction), a pearly-white opacity, extending from the wound, was visible on the second day; this cleared up completely in all the cases in a few days.

Dr. Wood-White has omitted to state the strength of the solution of corrosive sublimate used by him, and also whether he has used the same solution alone in other cases; but, assuming that the solution was of the strength ordinarily employed, the conclusion seems a reasonable one that the effect produced was in some way dependent upon the combined action of the cocaine and corrosive sublimate; and some of Würdinger's experiments appear to support this.

Dropping fluoresceine into a cocainized and into a non-cocainized eye only the superficial layers became fluorescent, but that in the cocainized eye the deeper layers also became affected. When the epithelium was removed from a limited area, and "methyl-blau" was dropped upon the abraded surface, it alone became colored in the non-cocainized eye, while in the cocainized eye the coloring matter extended through the whole cornea. It seemed clear, therefore, that the effect of the cocaine was to increase the absorbent power of the cornea. Finally, Würdinger found that weak solutions of boracic acid, corrosive sublimate, and even of common salt, which in the normal eye were perfectly innocuous, in the fully cocainized eye produced a turbidity of the cornea, identical with the early stage of the striated keratitis which sometimes follows cataract-extraction.

If subsequent experiments should verify these conclusions, it is evident that the views at present held as to the advisability of employing corrosive sublimate as an antiseptic will have to be considerably modified. It is of the utmost importance that these investigations should be carried further, in order to ascertain what is the weakest solution of corrosive sublimate capable of producing the lesions described, and the weakest that is efficient as an antiseptic. In the meantime, steps should be at once taken to ascertain whether any interstitial lesions of the cornea have ensued when cocaine has been used alone. It is significant that most of the reported cases have been furnished by institutions in which corrosive sublimate is used as a matter of routine; but in many instances it is not

stated whether it was actually used or not, the point not being considered of any importance at the time of publication.—*Br. Med. Jour.*, Aug. 7, 1886.

Smith (T.) on Supra-Pubic Lithotomy with Removal of a Stone Weighing Twenty-four and a Half Ounces : Recovery.—W. K.—, an artilleryman, aged forty-three, was admitted into St. Bartholomew's Hospital on April 14, 1886. He had served as a soldier in India and throughout the Abyssinian campaign, and was engaged in his military duties until a week or two before admission. For the last ten weeks he had passed his urine more frequently than usual, rising five or six times by night for this purpose. More recently he had been unable to retain his urine completely, especially when lying down. He has always micturated in a good stream, and without difficulty or pain; he never passed any blood, but for some time he had observed a little shreddy mucus in the urine. The only inconvenience he was suffering from was increased frequency of micturition and some slight pain over the pubes. He had never been sounded. The urine was neutral, sp. gr. 1010; it contained a trace of albumen and a little flocculent mucus. About fifty ounces was passed in the twenty-four hours. He is a large-framed man, of spare habit, and fairly healthy appearance.

On examining through the rectum, a densely, hard, rounded swelling could be felt in the situation of the prostate; on the first examination it was thought to be a tumor growing in the prostate, and it was not until an anæsthetic had been given and a sound introduced that its real nature was ascertained. It was found to be slightly movable, and could be felt between the finger in the rectum and the hand over the pubes. The sound would not enter the bladder, but readily struck the stone at the vesical orifice of the urethra.

For a short time the bladder was washed out daily with a boracic-acid solution, and on April 22d the supra-pubic operation was performed. The urine being drawn off as far as possible with a red rubber catheter, about ten ounces of the boroglyceride solution were injected and a tape tied round the penis; this proceeding brought the bladder into such prominence above the pubes that the use of the rectal bag was dispensed with. An in-

cision four or five inches long was made in the mesial line and the bladder exposed at the lowest part, all bleeding vessels being secured as they were divided. All veins in the immediate neighborhood of the incision were also tied and divided, especially those in the loose tissue behind the pubes. The abdominal wound being held widely open by retractors, all tissues down to the level of the bladder were pushed upwards and held by a blunt double hook. The bladder was first opened at the lowest part, the wound being enlarged to the extent of four inches by a probe-pointed bistoury. The bladder wound was held apart by retractors, so that its cavity was widely opened and the stone freely exposed. The muscular wall of the bladder was much hypertrophied, being three quarters of an inch in thickness; it bled pretty freely when divided. The stone, which was somewhat disc-shaped, lay in the middle line, with its broad surface upwards, and fitted closely the surrounding parts. On making pressure from the rectum, the stone revolved so as to present its thinner edge and to allow the insertion of large lithotomy forceps. It was extracted with very moderate force. The mucous membrane of the bladder presented a healthy appearance; it was neither ulcerated nor abraded. The bladder wound was closed with seven deep sutures of carbolized silk, passing through the whole thickness of the muscular substance, and six or seven more superficial sutures of carbolized catgut. A space was left just above the pubes for the introduction of a red rubber catheter, and this was tied in, one end protruding at the abdominal wound, the other being carried out through the penis; several holes were cut in that part of the catheter which lay in the cavity of the bladder. The upper two thirds of the abdominal wound was closed with silver sutures, the whole surface was dusted with iodoform, and the cavity behind the pubes was filled with small pieces of sponge separated from the wound surface by carbolized oil lint, so as to stop all oozing of blood; the whole was covered with iodoform gauze.

For a few hours after the operation it was necessary to syringe pretty frequently through the abdominal end of the catheter to keep it free from blood-clots; afterwards this was done twice a day. The patient suffered scarcely any pain after the operation and during his convalescence,

except when the wound was dressed. That part of the abdominal wound which was sutured united at once. The bladder wound, so far as could be seen, did not unite at once; the lowest part of this wound and that in the abdominal wall were evidently bruised by the retractors; their surfaces separated in shreddy sloughs, and retarded convalescence so far as the healing of the wound went. The temperature rose once to 102° on the second day; next day it fell to 100° ; and after a week it became almost normal, and remained so throughout. On May 13th the patient was able to leave his bed, and two days later the catheter was removed. On the 22d he went out of doors. On June 1st he went back to bed, and had a catheter tied in, as there was still a sinus open above the pubes, which could be kept closed by plaster drawn across the abdomen for days. On July 16th the edges of the wound were pared, silver sutures introduced, and a catheter tied in.

The stone removed weighed $24\frac{1}{2}$ oz.; it was ovoid in shape, and consisted of phosphates externally, with a large oxalate nucleus. On section it was found to be dense in structure, and regularly laminated. It was certainly a heavy stone for its size. It measured 13 in. in its largest circumference, and $9\frac{1}{2}$ in. in its smallest.

The above account has been given somewhat in detail, since there is need of a larger recorded experience of supra-pubic lithotomy to determine certain points of practice, both in the actual performance of the operation and in the after-treatment. The unusual size of the stone enabled me to dispense with the use of the rectal bag; the pelvic portion of the bladder being occupied by the stone, a very moderate distension with fluid sufficed to bring the bladder into prominence above the pubes. The wound in this case was of necessity very large. The extra space was gained by increasing the length of the incision rather than by any transverse division of the tendons of the recti muscles, and it is an open question which proceeding least impairs the strength of the abdominal wall. The veins in the loose fat behind the pubes were tied and divided, as possibly giving greater security against secondary hemorrhage—an accident which has been known to occur in more than one instance. The bladder was sutured after Petersen's method, the wound being closed, except at

its lowest point where space was left for the introduction of a catheter. It is doubtful if this be the best plan to adopt; Sir H. Thompson, whose experience of the hypogastric operation since its revival is the largest on record, does not employ any suture at all, and, as I understand, has met with no difficulty in the closing of the wound. Such difficulties, however, do occur. In my own case, three months after the lithotomy, I closed a supra-pubic fistula with silver sutures. In Mr. Barwell's case the wound was as long as three months in completely closing; and lately I heard of a patient who was admitted into Professor Billroth's wards for a fistula, the results of a supra-pubic operation performed eight months before. Mr. Robert Parker has recently recorded a case of suture of the entire wound in the bladder followed by immediate union; and he suggests that in young subjects, where the tissues are healthy, an attempt to secure primary union should be made by carefully suturing the bladder. It would be greatly to the comfort of the patient if the bladder wound could be closed at the time of the operation, and it is to be hoped that a larger experience may lead to improvements in this respect. In the case here recorded the bladder wound was little likely to have united even if entirely closed by sutures, since the edges were of necessity somewhat roughly treated, owing to the size of the stone. Yet it seemed to me possible that the wound would never have united if left entirely unsutured; it was four inches in length, and without some sutures the edges could easily have overlapped and made union almost impossible.

With regard to the size of the stone, I believe this to be the largest that has been extracted during life, and certainly it is the largest that has been removed with complete recovery of the patient. Very few larger calculi have been removed after death. Professor Humphrey and Mr. Holmes have recorded instances of calculi removed after death—one weighing 33 oz., the other 25 oz. Mr. Rivington extracted a stone almost as large as in the case here recorded; but his patient did not ultimately survive, though he recovered from the operation. In Sir Henry Thompson's case the stone weighed 14 oz., and the patient completely recovered. Dr. Rutherford Morrison has recently recorded a case

where he removed a stone weighing 22½ oz., the patient dying on the thirteenth day.

The almost complete absence of the characteristic symptoms of a stone in this patient was a remarkable feature in the case, though in this respect it does not stand alone, for in other instances of very large calculi the same peculiarity has been observed, though in a far less degree.—*Lancet*, Aug. 7, 1886.

Thompson (H.) and Others on Supra-Pubic Lithotomy.—In a discussion on this subject Sir Henry Thompson said it was a question of what operation was best to remove a stone of large size. Crushing was now considered the best—except for very large stones—but this was not so formerly. Lithotomy was then in vogue, and was attended with great mortality in cases where the calculi were large. Sir Henry Thompson said that at an early period of his career he had endeavored to find some other method than cutting. He gave a graphic description of the effects of removing large stones by perineal operation. After referring to eight deaths as occurring in twenty-five cases of lithotomy, he spoke of a series which were treated by crushing without any death occurring. Lithotomy acquired its repute under Cheselden, who operated mainly on young children and middle-aged adults with stones of medium size. To-day the situation was changed. The lateral operation was always difficult for large stones, and it was for those of exceptional size that the supra-pubic operation was designed. He enumerated eight advantages as attending it: 1. There were no important structures in the line of the incision, or which could be injured by the forceps. 2. The space for manipulation was practically unlimited. 3. There was no danger from hemorrhage, as any which might occur could easily be stopped. 4. The incision was easier of performance, and the removal of the stone safe and easy. 5. The urine left the wound drier and safer. 6. Antiseptics could be used. 7. It was impossible to injure the sexual organs, or to produce recto-vesical, or vesico-vaginal, fistulæ. 8. it was better for large stones. There were but two possible dangers: The peritoneum might be opened, or extravasation of urine might occur. He would deal with the latter first. The risk of its taking place was small, and it could only occur from needless interference outside the bladder.

No part outside should be approached save in the line of the incision. There was only one way in which it occurred. The stone sometimes emerged spontaneously, the bladder contracting around it. Only one who had met with such a complication knew what to do. In such cases manipulation with the staff might cause extravasation. It was interesting to note that John Douglas made a similar remark as to the use of the staff. As to the danger of wounding the peritoneum, that was *nil*. He had never seen this happen, nor even heard of its happening; but even if it did occur, modern resources would enable us to deal with it. The modern method of raising the bladder had the advantage that it aided us in avoiding the peritoneum; but this was not the only benefit of the method. To raise the bladder he used a rectal bag distended. He had never used or advised one containing more than twelve or fourteen ounces. He had lately used and advised a more elongated bag, slightly flattened from before backward. This was introduced as soon as the patient was under ether, and distended with two syringefuls of water from a syringe containing six ounces. The catheter was then passed, and the bladder slowly distended by injecting from six to twelve ounces of weak boracic lotion. It would then form a dull, rounded tumor above the pubes. The surgeon, standing on the left of the patient, then made the abdominal incision from below upward. A separator was used to keep the tissues apart. The stone was removed with the scoop and a finger, or by two fingers without the scoop. He did not advise closing the wound in the bladder completely at the time of the operation, as there would be some risk of forcing urine through the wound. There would be less danger of this in children. A catheter was passed into the bladder above the pubes, and left in from twelve to forty-eight hours. A catheter in the urethra was unnecessary, and only a source of annoyance. Sir Henry Thompson said he had operated by the supra-pubic method on eleven patients; seven of these were old men. Three were cases in which the stones were very large, one being a stone of twelve ounces. One was a patient with a very large prostate, so large that the bladder could not be explored from the perineum. Sir Henry Thompson concluded by expressing a regret that he had not used the supra-pubic

operation sooner, but it was a satisfaction to him to think that he had introduced it into this country soon after Taylor had employed it.

Mr. REGINALD HARRISON (Liverpool) showed a large stone removed by the supra-pubic method, and in the removal of which midwifery forceps had been employed. For the last twenty-five years he had used lateral lithotomy, he said, and chiefly in children, because he preferred the crushing operation for adults. The mortality in his cases had been only one in twelve, and he did not think better results could be obtained from the adoption of the supra-pubic operation, until better evidence than that at present adduced had been brought forward in its favor. It was important to study the subject. He had never met with any serious difficulties in removing by the lateral operation stones weighing as much even as five ounces. Such difficulties as had occurred would not, he believed, have been removed by the adoption of the supra-pubic operation. If, either in lateral lithotomy or in operations on the prostate, the wound continued to bleed, he plugged it with an india-rubber plug exactly fitting it. He kept an assortment of these plugs of various sizes. He concluded by saying that he should be reluctant to abandon lateral lithotomy in favor of the supra-pubic operation, save in the case of stones of very large size.

Mr. CADGE (Norwich) remarked that the supra-pubic operation had been performed in only about one hundred and fifty cases in all. Brodie, though, had a hundred cases of lithotripsy before he published his monograph on the subject, which at once captured the profession. We should, he said, wait for further results of the method.

Mr. BARWELL said that in boys (and also in girls) the lateral operation presented certain difficulties which were removed by the supra-pubic operation, and the latter was extremely simple. While on this subject he wished also to refer to epicystotomy. There was no doubt that when we had to do with a tumor of the bladder the supra-pubic operation would enable us to remove it easily. He would join issue with Sir Henry Thompson as to the desirability of distending the bladder, because large stones mostly occurred in old persons with enlarged prostate, and by distending the bladder you also distended the membranous portion of the urethra.

This was not always safe in old persons. He did not either approve of distending the rectum in all cases. Mr. Barwell then went on to speak of the relations of the bladder, and reminded his hearers that the peritoneum was not attached to it. As regarded the results of different methods of treatment, he did not think that a very decided numerical superiority could be claimed for any one. In performing the supra-pubic operation he thought it was desirable to sew up the abdominal wound, so as to prevent a ventral hernia just above the bladder.

Dr. WARD COUSINS (Southsea) said that the supra-pubic operation had been resuscitated by the attention which had been paid to its details and the use which had been made of antiseptics. Its employment was desirable in cases of encysted stone, and also in cases of stone where the prostate was also enlarged. He described a case in which the patient suffered from stone, enlargement of the prostate, and the hip- and knee-joints on one side were quite stiff. He performed lateral lithotomy, but would certainly select the supra-pubic operation if dealing with such a case again. He thought lithotomy would prove the best for very small stones, and the supra-pubic operation the best for large ones. As to those of medium size the question was as to choosing the lateral or the supra-pubic operation. The former was safe, but was regarded as not being very easy. It was, however, easy if a very sharp knife were used and a straight direction into the bladder kept to. He did not approve of withdrawing the staff (the bladder and urethra being distended) before the bladder was reached by the operator. Such a plan might be safe enough in the hands of Mr. Cadge, but he did not think it a wise one for average operators. Dr. Cousins advocated the use of his (Dr. Cousins') straight staff, and said that with this he did not think the operator could go wrong. This statement caused some amusement.

Sir WILLIAM MACCORMAC said he saw Langenbeck perform the supra-pubic operation years ago in children, and point out its applicability to them. He agreed with Mr. Barwell that vesical and rectal distension were both needless. He referred to a case in which he had performed the supra-pubic operation. The operation was done antiseptically, and the skin wound was an inch and a half long. He removed

a stone the size of a marble. He sewed up the wound in the bladder with catgut, then the abdominal wound, and closed the skin wound except leaving a catheter in. The skin wound healed completely in fourteen days.

Sir HENRY THOMPSON then replied. He repudiated the suggestion that Cheselden set aside the supra-pubic operation. Cheselden continued to perform it. There was something about the disuse of the supra-pubic operation that we had not yet got to the bottom of. He remarked that the supra-pubic operation was very suitable for children. Respecting the choice of different operations for different cases and the fixing of limits, he thought different operators would have different views and find different operations suit them. The personal equation came in surgery as in astronomy. Just as an astronomer knew that, of two observers at different stations, one would see a certain star one sixteenth of a second before another, so no two surgeons would be exactly alike.—*Med. Record*, Aug. 28, 1886.

Lawes (W. G.) on Customs among the Natives of New Guinea in Sickness and Childbirth.—My time has been greatly taken up this year by an unusual amount of sickness and great mortality among the natives. We always expect sickness when the rainy season sets in, or rather when it is drawing to a close, but this year has been, in every way, exceptional. I do not know how far the prevailing epidemic may be attributed to a specific malarial poison. It has taken the form of pleurisy, or, perhaps, pneumo-pleuritis—certainly pleurisy plus something. It has been very fatal, and from the history of many cases would seem to be contagious. The absence of all sanitary arrangements, and a terrible scarcity of food, have helped to swell the bill of mortality.

The natives of this part of New Guinea look upon all disease as a bewitchment, and have no idea of medicine, except as something to exorcise the evil spirit. Medicine to drink is quite a new idea to them. Even in simple constipation it is thought to be the result of trespassing on forbidden ground, or stealing bananas, over which rites have been performed to make them sacred. Diarrhoea is looked upon as the result of over or promiscuous feeding, but they have no remedy for it.

In case of disease they send for a

"paparau" (medicine-man or woman), who makes passes over the patient, talks in some gibberish to the disease or spirit, and then sucks the part affected. They spit and splutter, and often vomit; they then produce all sorts of curios, such as stones, bits of wood, string, etc., which they declare they have sucked out of the painful place or limb. The custom is precisely the same as that described in Sir J. Lubbock's "Origin of Civilization," p. 27, 28, etc.

There are medicine-men who collect various leaves and herbs, but these are used as charms, and never taken. That in most request is one that will draw the women to its possessor, and make him irresistible to the fair sex.

The natives are almost as ignorant of surgery as medicine. A broken limb they can set and bind up in splints, but I have never seen a case, and do not know whether a proper union is effected or not. Even this is accompanied by incantations and sorcery. Wounds they bandage, but make no suture. Fractures and wounds are very rare—I don't think there has been a single broken bone in this village of a thousand people during the last ten years.

With regard to the women, menses come early. On their first appearance the girl's mother will ask her privately if a young man has been with her, or if they have come without intercourse. In some of the South Sea Islands, the Harvey Group for instance, the natives believe that they are the result of intercourse, and *never come without*. There is no such belief here. The quantity is less than with English women. They wear an arrangement of dried banana leaves, or grass, when the quantity is considerable. A woman is sacred or unclean during the period, and no man will touch her then. They do not know how long the period of gestation is. The first sign of pregnancy they distinguish is morning sickness, and the next the darkness of the areola round the nipple. This last is *the* sign patent to all, for all the women's breasts are uncovered. The areola becomes quite black.

When labor pains come on, the mother of the woman and her mother-in-law come—the former to assist the woman, the latter to receive the child. A rope is made fast to the roof and hangs at a convenient distance from the woman, so that she can hold on to it when the pains come on; her mother sits behind her so as to support her

back and head. They are always delivered sitting. When the birth is difficult (a rare occurrence even in *primipara*) a ceremony is gone through, which consists of the assembled friends performing an incantation and calling upon their ancestor god to help. It is only in extreme cases, such as malpresentation, that they endeavor to pull the child away with force.

In most cases the women seem to suffer but little. A case was published in the *Sydney Morning Herald*, in correspondent's letter from here, September 1, 1885, which illustrates this.

When the child is born it is received by the expectant grandmother, who sucks its mouth immediately. The cord is not cut until after the placenta has come away; when it has come the grandmother works the cord by her finger-nails until it becomes thin; she then cuts it with a piece of flint; it is not tied. The previous manipulation of the cord prevents loss of blood. The distance from the navel at which it is cut is measured on the child's thigh.

Here, among the Motu tribe, mother and child remain in the house until the cord drops off, usually on the fifth day. Then the mother takes the child down into the sea, and bathes herself and it.

At Hood Point, the mother takes the child in her arms as soon as it is born and plunges with it into the sea. The object is said to be to make them fearless of the sea. They are a tribe of fishermen.

In the Gulf, to the west, they take their new-born babe to meet the breakers, and let the surf break over it. The same reason as above is given for it.

After-troubles are very rare. If discharge continues beyond the usual time, it is attributed to some sorcery, or breaking of some charm by the woman. I have never heard of a case of *prolapsus uteri*.

Until the mother is able to feed her child, relatives and neighbors suckle the child. From the time the navel cord drops off, the child is given ripe bananas, when procurable, and very soon yams and other vegetables—all chewed first by mother or sister. Milk of animals is unknown among the natives as an article of diet. The children are really never weaned—a big boy, three years old, will come in from play and run up to his mother for a drink.

The husband does not cohabit with his wife until the child is six or eight months old, and many not until the child can run

about. It would have a prejudicial effect, they say, on the child—it would become ill and fretful.

Twins are not common, and are not liked either. Eating a double banana is supposed to be the cause of twins. Triplets seem never to have been heard of.

Among the young women, especially the unmarried, abortion is common. It is produced by pressure. The mother, sister, or some female friend, stands on the woman's stomach, and tramples on it until the child is killed.—*Australas. Med. Gazette*, June, 1886.

THERAPEUTICS.

Roux (F.): A Study of Colombine.

—Experimentally given in toxic doses to animals, colombine causes a granulo-fatty degeneration of the liver, and destruction of the cellular elements of the gland. The symptoms of poisoning are anorexia icterus, gastro-intestinal catarrh, and a yellow discoloration of the fæces, symptoms similar to those of severe jaundice. Colombine acts on the digestive tube by producing gastric, intestinal, and biliary hypersecretion. A daily dose of gr. $\frac{1}{4}$ is large enough to commence with.—*L'Union Méd.*, Aug. 10, 1886.

Eloy (C. H.) on Thalline, its Properties, Clinical Value, and Action.—

The author concludes that experimental physiology and clinical observation prove the anti-thermic action of this drug, but demonstrate also that the lowering of the temperature is obtained at the price of qualitative alterations of the blood, diminution of oxyhemoglobin, of respiratory and circulatory disturbances, and by the retardation of tissue metamorphosis, all of which phenomena indicate profound changes in the great functions of the organism. For these, and other reasons, he thinks the use of thalline is not justifiable. The anti-thermic agent, he says, will be a medicament which will re-establish the normal equilibrium of the temperature in the organism. This, he says, thalline does not do.—*L'Union Méd.*, Sept. 7, 1886.

Lépine (R.) on Antipyrin Considered as a Nervine Medicament.—

In a non-febrile person, a single large dose by the mouth produces a peculiar and indefinable sort of cerebral excitement, which is not altogether unpleasant, and in which the intellect is a little exalted. There is

no vertigo nor tinnitus, and sleeplessness is not marked, or may be wanting. Sleep, if it occurs, is apt to be disturbed by nightmare-like dreams.

In the healthy subject, this state is not agreeable, and in this respect, differs much from a small dose of morphine; but in certain subjects the prey to pain, the antipyrine intoxication acts as well or better than that of morphine or the salicylate of soda.

In ataxics, 3 iiss of antipyrin a day in two doses gave marked relief to the pains, but caused some insomnia and an aggravation of the inco-ordination. The bad effects of the drug were evanescent. In many cases of hysteria with or without chloral, antipyrine has proved itself manifestly useful.—*Lyon Méd.*, Aug. 15, 1886.

Taylor (L. G.) on Tolerance of Hydrate of Chloral and Bromide of Potassium.—The case reported below shows a rather remarkable tolerance of chloral hydrate and bromide of potassium.

A gentleman subject to very severe attacks of headache of a markedly congestive character, recurring at irregular intervals of a week or a month or more, otherwise being perfectly healthy, had obtained from a physician this prescription:

B	Pot. brom.		℥ ss
	Chloral hydr.		℥ ii
	Elixir simp.		℥ ii

M. SIG.—Teaspoonful every hour until relieved.

On the evening of July 17th, at eight o'clock, while suffering with a severe headache, he took what was left of the original bottle—about two teaspoonfuls,—and sending to the druggist, had the prescription refilled with double quantities—a four-ounce mixture. On receiving it, he took two doses in quick succession, without care as to quantity, the last dose being taken at 9 P.M. I found the bottle a little over half-full, and none having been spilled, he must have taken from the two bottles not less than two ounces of the mixture—that is, ℥ ss of the potassium bromide, and ℥ ii of the chloral.

The patient was in a profound sleep, into which he had fallen shortly after taking the last dose. His pulse was 74, full and regular; respiration 17, and easy; temperature normal; the pupils slightly contracted. On trying to arouse him, he muttered some unintelligible words, turned over, and lay quiet again. I gave him a

hypodermic of Mii fluid extract of belladonna. At the prick of the needle, he wakened and objected, but soon consented and went to sleep again. There being no alarming symptoms, I left at 11:30 P.M., and returned at 11 A.M. On my return, I found him still sleeping, but easily aroused, and in good condition, though he said he felt quite weak, and did not remember any thing since nine o'clock the night before. He had slept an apparently normal sleep of fourteen hours.—*Kansas City Med. Record*, Sept., 1886.

Strahan (J.) on an Unrecorded Danger from Continued Large Doses of Iron.—Large doses of iron act as an immediate stimulant, rapidly remove anæmia, remove gastro-intestinal catarrh, renew appetite and digestion; but, unfortunately, if continued more than a week or two, they cause a gastro-intestinal catarrh of their own, and, if this be not attended with diarrhœa, or if a purgative be not given, serious symptoms may ensue.

The preparations I have found to cause symptoms of obstruction are as follows: Ringer's pill of 5 grains of sulphate of iron = 9 grains of ordinary sulphate; half-drachm and whole-drachm doses of tincture; *mistura ferri composita*, *P.B.*, made so strong as to contain 8 or 10 grains of sulphate of iron and carbonate of potash in each dose. Any of these, if given three times, or even twice, daily, for from one to two weeks, and if natural or artificial diarrhœa do not in the meantime wash out the quantities of insoluble sulphide, will cause severe colic and constipation, which morphine and turpentine stupes seem unable even to alleviate, and which, it seems to me, would continue indefinitely, or till death, if not removed by a smart saline purge, or other means. I have seen twenty-four hours of rhythmic agonizing pain, very like labor, with nearly constant vomiting, no sleep or ease, after a grain of morphine by the mouth, the temperature rising to 101° Fahr., and great depression of all the powers of life, from a couple of weeks' course of Ringer's pill, which had done immense good to the system at large. This has not occurred once only, but dozens of times, so that I now expect it, and provide against it. As soon as ever a large dose of any saline—I prefer an ounce of sulphate of magnesia—has well acted, all symptoms rapidly disappear. At this time, and for twenty-four hours after, the

stools seemed composed half of dirty water and half of black sand. I think this latter fact explains the pathology of the matter. In fact, it is a real obstruction—an acute one, too—by quantities of insoluble sulphide of iron. The quantity of this black sand, which comes away when severe constipation and colic have occurred, is surprising. It seems to be much more in quantity than the whole iron ingested, although the stools have been jet black all along, through excreting the sulphide. So, it seems to me, it must lodge somewhere; perhaps in the cæcum, and the saline gives the quickest relief, because it produces such a vast exosmosis of water from the intestinal wall at all points, as to dissolve the mucus which binds the sand, and then washes it out.—*Brit. Med. Jour.*, Sept. 18, 1886.

Hunt (P.) on Dry Antiseptic Powder.—For many years I have been in the habit of using a dry antiseptic powder in much the same way: oxide of zinc, carbonate of magnesia, and powdered boracic acid, with carbolic acid added so long as the powder retains its character as a powder. This dusted over the surface of a wound—an old indolent ulcer or a scald—at once reduces the discharge from the surface and renders it of a healthy nature. No matter how extensive the surface may be, it does not require to be cleaned off at any time, the only dressing requisite being to continue the dusting; in extensive burns or scalds the relief from painful dressing is very marked. In indolent ulcers a piece of old linen rag must be placed over the powder, and pressure exercised by means of an india-rubber bandage. In ulcers of the penis, the carbolin of oxide of zinc, with resorcin and calomel added, forms a dressing which rapidly heals. I used the dry antiseptic dressing recently to dress the wound caused by the operation for strangulated inguinal hernia; it acted perfectly, there was not one drop of pus secreted, the wound healed by the first intention, and the patient was discharged from hospital in eight days. "Portability" is of great importance, and this powder is easily carried. A small receptacle similar to a pepper-box serves to dust the wound with. I have used a compound box, which, being in form much the same as an ordinary round ruler, is easily carried, and contains chambers for four or six different powders. In specific ulcers, and where there is an unhealthy surface, it

is advisable to destroy that surface with nitric acid or nitrate of silver before using the powder.—*Lancet*, Sept. 4, 1886.

Colvin (D.) A Plea for Venesection.—As I believe it to be the duty of every medical man "to hold fast that which is good," and if perchance that which is good has seemed to have been lost, I consider it to be his duty to try and induce others to aid in regaining it, be it what it may.

I write this as a plea for venesection, which therapeutic aid seems to be so determinedly ignored. With no intention of speaking of its necessities in the various ills of life, I desire only to mention its use in two recent cases, to wit :

At 2 A.M. on the 3d of July last, Mrs. F., aged 52, and married, who had always possessed good health, awoke with difficulty of breathing, numbness of left side of face, and some of the remainder of the same side. Severe headache accompanied the numbness, and there was some confusion of intellect.

As I was not in the habit of going out at night, and she being quite partial to me as a physician, I was not called until early in the morning.

Upon my arrival, I was given the above history, and told that they (the symptoms) were changeable during the latter part of the night—at one time severe, forcing her to sit up in bed, while at another time she would be easier, nearly falling asleep. The pulse was somewhat irregular *as to frequency*, small and easily compressed; I believed there was a hyperæmic condition of the vessels of the brain, which, if allowed to go on, treated only with cathartics, aconite, and the bromides, would eventuate in a rupture of their coats.

I opened a vein with her in a semi-erect position, and allowed the flow to proceed (my fingers being *constantly* upon the opposite radial artery, which has always been my custom) until the pulse became *regular and fuller*, when she said: "My headache is gone, and I now feel as though I had a whole upper lip instead of half a one." (She had previously told me that when she put a glass to her lips the feeling was as though the left half of the upper lip was gone.)

After removing the ligature, the blood continued to flow as freely as before its removal, requiring the compress and roller to be so tightly applied for a time as to

obstruct the return circulation. Eighteen ounces were lost. This was followed by a saline cathartic *only*.

The following morning I found her doing her kitchen work (she was a poor woman), and I was saluted with the remark: "Doctor, I am well; the bleeding done it." She has been perfectly well since.

Case 2. Mrs. M., widow, aged 58, with health good generally, and a "hard worker," upon rising from her chair at the breakfast-table on the morning of the 16th of July last, suddenly discovered that her left side was numb, accompanied with intense headache. The left side of the face was especially numb.

I saw her in a few minutes, and found her suffering from the above symptoms; the suffering more especially was from the cephalalgia.

In this case the pulse was not irregular like the first, but firm and small. She was placed in a chair and a pint of blood was taken, when the pulse was observed to become *fuller* and softer, yet I allowed the flow to continue until the impression was decided. The same difficulty in arresting the flow was had as in the first case.

A cathartic *only* was given, and the following day Mrs. M. was about the house and feeling very well. No other medicines were given, and the numbness entirely disappeared in forty-eight hours.

Among the profession there seems to be such a horror of losing a little blood, that I wonder why those who are so tenacious do not at once seek to check the hemorrhage in every case of epistaxis or hæmoptysis to which they are called.

Notwithstanding the loss in these two cases, there was no evidence of it in the appearance or feelings of the patients on the following day.

Would aconite, the bromide of potassium, low diet, and cathartics, have averted the disaster which I believe the above symptoms indicated, as well as the venesection?—*Med. and Surg. Reporter*, Sept. 18, 1886.

Gregg (C. K.) on a Method of Rendering Iodoform Inodorous.—By means of five drops of the oil of peppermint to one ounce of the dry powder or ointment, I have found that the odor is rendered entirely innocuous. Patients who are not always careful and keep the air excluded, do not complain of the odor returning by such exposure. I have tried this procedure in a great many cases and have never had

any complaints offered.—Daniel's *Tex. Med. Jour.*, Sept., 1886.

Paoletti on Iodoform in Polyuria.—The patient was admitted with a small sore on the leg, non-syphilitic. He complained of great thirst, and was losing flesh; the urine was normal in composition, but the quantity was very great. After the wound had healed, the polyuria remained. As much as 12 litres a day were passed. Under iodoform, 40 centigrammes increased to 1.40 gramme a day, the urine diminished from 12 to 9, 7, 5, 4, and 3½ litres.—From the *Gaz. Med. Ital., Lombard.*, in the *Lond. Med. Record*, April 15, 1886.

Drysdale (C. R.) on Mercury.—Although both mercury and iodine are doubtless antidotal to syphilis, the author does not admit that mercury can nip the disease in the bud, although his practice now is to give it always in very small doses, such as one grain of mercury and chalk daily during the early period. He thinks that its chief value is to be seen in severe outbreaks of the disease, in iritis, in disease of the retina, and early brain symptoms, and also, to a certain degree, in warding off the tendency toward tertiary disease, a property which Dr. Alfred Fournier enthusiastically ascribes to it. He thinks it should be rarely used in tertiary syphilis, or, at any rate, that iodide of potassium should form the main treatment, and mercury only the adjuvant in that stage. Iodide of potassium is the true antidote to the germ of syphilis when that has become mitigated by age in the human system.—*N. Y. Med. Rec.*, Sept. 26, 1886.

Chase (A. G.) on the Watermelon Vine as a Source of Musk.—In a recent number of *The Medical Record* I called attention to the tip ends of the watermelon vine as a probable source of obtaining musk. I collected a quantity of the young ends and made an aqueous extract, evaporating to a waxy consistence. I have used it in the form of pills in two cases, as a nervine, with very prompt and decided action. I would like to call the attention of pharmacists as well as physicians to it, for further examination. I have been very partial to moschus for many years, in the nervous and hysterical symptoms of young girls.—*N. Y. Med. Record*, Sept., 1886.

Lancaster (R. A.) on Corrosive Sublimate in the Treatment of Purpu-

ra Hæmorrhagica.—A short time since I had a patient suffering from a severe attack of purpura hæmorrhagica. There were well-marked purpura spots larger than buck-shot scattered over the body, limbs, forehead, and roof of the mouth. There was also free and persistent hemorrhage from four decayed roots of teeth on either side of upper and lower jaw. In spite of the heroic use of all the recognized hæmostatics and astringents, both internally and locally, the bleeding continued for seven days. Having tried all the remedies that I had ever heard recommended, with apparently no result, I decided to try the local application of a strong solution (1 to 240) of the bichloride of mercury.

The mouth was well rinsed with this, and pledgets of cotton wet in the solution and applied to the bleeding surfaces.

The bleeding was at once arrested and convalescence established.—*N. Y. Med. Record*, Sept. 25, 1886.

Regis (E.) on Washing out the Stomach of Lunatics who Refuse Food.—The author selected a single practical point of great importance—namely, refusal of food, or, as he called it, sitiophobia. This, he remarked, is very frequent in asylums; it is but a symptom only, or, rather, a complication,—not a disease of itself. It is especially common amongst female patients, and is the rule amongst subjects of lypemania, or melancholy. It is sometimes seen in mania and alcoholic cases, and though more rare in general paralysis, is still seen in the depressive or non-grandiose form, the patients believing that they have no stomach, intestines, or mouth, and that therefore they are incapacitated for eating. In patients who believe themselves to be undergoing persecution, and in religious and mystical mania, sitiophobia is very common. The gravity of the condition is not equal in all classes of cases, but it is always to be looked upon as of serious import. In melancholy, it is certainly possible for it in tedious cases to bring on a fatal result by inanition. With regard to the treatment and the manner of carrying on alimentation by force, the speaker reviewed the various plans that had been adopted, stating that his own preference was for a simple nasal sound of soft rubber, lubricated with vaseline instead of with oil. In addition to forced feeding, M. Regis has, for some years past, been in

the habit of washing out the stomach, especially in cases where there were signs of gastric catarrh, which is very frequent amongst lunatics. For this purpose he used the double-current stomach-pump of Kussmaul, and obtained most marked success, which encouraged other physicians to follow his example, with the result of obtaining similar favorable changes in the patients. Of late he has altogether discarded the stomach-pump for a simple Faucher's tube; and he is convinced that, if the washing out of the stomach were to become universal in this condition, a large number of such patients would be very much improved. Even in the case of non-sitiphobic melancholics, this treatment would, he thinks, prove very beneficial.—*Br. Med. Jour.*, July 3, 1886.

Shank (A.) on Salicylate of Soda in the Treatment of Infantile Diarrhœa.—If the discharges are offensive, no matter in what stage of the disease, give the salicylate of soda, subnitrate of bismuth, and calomel in small quantity continuously, and in the great majority of cases the treatment will be found to be successful. Carbolic acid, combined with the chalk mixture, has been highly recommended, but in the writer's experience has not proved so satisfactory as the treatment above described.—*Arch. of Pediatrics*, July, 1886.

Morton (D.) on the Treatment of Summer Diarrhœa of Infants by Antiferments.—It appears that there are two indications for treatment which lead all others in importance. The first is to overcome that effect of heat by which the mucous lining of the alimentary canal has been brought into a state of congestion and consequent readiness for great and rapid loss of appropriated material. This indication is to be met in the main by measures for reduction of temperature. The second indication is to prevent fermentation. Food which fails to be digested not only adds nothing in the way of nutriment, but, by undergoing fermentation, becomes an irritant, and thereby causes a loss of already appropriated material. It therefore becomes an object of much importance in treatment to withhold food altogether for a considerable length of time.

Until three years ago it had been my habit to use the milder antiferments in common use—as carbolic acid, hydrochloric acid, bismuth, chlorate of potas-

sium, sulphite of sodium, and some others,—and while using these I had never realized the importance of this part of treatment. Since that time I have been using two far more effective antiferments—nitrate of silver and bichloride of mercury,—and have found that in many cases, perhaps the majority, to check and to prevent fermentation constitutes all the treatment needed. As to the comparative value of these agents I have not yet determined. My impression is, however, that when nausea and vomiting have been present, the silver salt has given better results, but that generally the bichloride has been more useful. The dose that I ordinarily give of the former is gr. $\frac{1}{16}$ four or five times a day to a child one year old, dissolved in distilled water and largely diluted; and of the latter, gr. $\frac{1}{16}$, also dissolved in water to which has been added a little alcohol or aromatic tincture of some kind. There need be no fear that the bichloride given in doses amply sufficient to prevent fermentation will irritate the bowels, provided it be plentifully diluted with water.—*N. Y. Med. Record*, Sept. 18, 1886.

Elsner (F. W.) on Acorn Cocoa in the Treatment of Diarrhœa and Vomiting in Children.—Short notes were made of about twenty-five cases—the summer being well advanced before the samples were sent out,—the youngest of which was one month and the eldest only three years of age. A teaspoonful is mixed with cold water in a small cup, and is then boiled whilst being constantly stirred, and this quantity is administered thrice daily by the spoon if the child will take it so; if not, by means of the feeding bottle; nursing at the breast is continued or not, according to circumstances. All other food and medicine is prohibited; as improvement sets in the quantity given is reduced gradually, but some children will not do without it and have to be regularly weaned from it, unless it is considered advisable to give a little every day as a dietetic adjunct. These twenty-five cases were pronounced one of continuous and exhausting diarrhœa with persistent vomiting, which had continued for three weeks in two cases and for shorter periods in others. As a rule, the mothers attributed the diarrhœa to teething; it was generally found to have originated by the administration of animal and vegetable food and even alcohol to the poor children, who usually appear as mere bags of bones,

with an offensive, sickly odor about them, white tongues, small pulse, peevishness, and when not actually vomiting, eructating continually. In one half of the cases (twelve) every approved remedy had been given, even opium in two cases, although as a rule I never prescribe it for infants except in consultation, for numerous reasons; in the other half the acorn cocoa was the first medicine administered; its effect was rapid and complete in each instance, and it never took more than two days to bring about improvement, whilst twelve days was the outside at which a complete cure was effected.—*Australas. Med. Gaz.*, June, 1886.

Acorn Cocoa.—Drs. Liebreich and Michaelis have introduced a new preparation of cocoa, consisting essentially of pure cocoa deprived of a large part of its fatty matter, and combined with a *soluble extract of roasted acorns free from cellulose*; a slight addition of roasted flour and of sugar is made to the cocoa in preparing the cocoa-powder, in order to ensure the necessary conditions of a perfect beverage.

This acorn cocoa has a pleasant flavor like that of chocolate; and the preparation was readily taken from the commencement and continuously for any length of time, this being probably due to the slight astringent flavor of the cocoa.

Hasenclever has employed it in the chronic diarrhoea of adults and children with good results. It was employed for several months in a long series of cases (97 in number), being those of diarrhoea, mostly combined with vomiting. The children varied in age from seven months up to nine years. They were for the most part, in a miserable condition from neglected diarrhoea. Seventeen cases were complicated with rachitis, and others of the children were suffering from chronic chest affections. The results reported are in the highest degree successful, the improvement being, in most instances, very quickly perceptible, and most of the children being cured within eight days. Dr. Von Hossling reports, in the *Münchener Medicinische Wochenschrift*, a trial, in 29 cases, in the out-patient department of the Children's Hospital at Munich, of the same food, and with equally good effects. It seemed to have a remarkably good result in rapidly improving the condition of the children and their state of nutrition, and also in arresting the diarrhoea of phthisical patients.—*Br. Med. Jour.*, July 31, 1886.

Whitaker (J. T.) on Tapeworms.

—The remedies against tapeworms may be ranked in efficacy as follows:

1. The bark of the pomegranate root, of which three ounces should be macerated in twelve ounces of water for twelve to twenty-four hours, to be then reduced one half under gentle heat. The whole quantity is to be taken in divided doses in the course of an hour. Pomegranate root remains the most effective of all anthelmintics, and would long since have excluded all others did it not at times produce nausea, vomiting, and colicky pains. To avoid the first of these evils, Bettelheim suggests the introduction of the infusion into the stomach by means of the stomach-pump, and to obviate all of them, Feraud recommends pelletierin, an active alkaloid of the root named in honor of the discoverer of quinine. One to two drachms of the infusion of senna is to be taken on the morning following a day of fasting, and in the course of an hour one fourth to one half of a grain of the tannate of pelletierin suspended in water. Half an hour later the same dose is repeated, to be followed in an additional half hour with a tablespoonful of castor oil, the patient remaining meanwhile quiet in bed, to avoid disturbance of the stomach. In one instance twelve beef tapeworms were expelled at once in this way.

2. Turpentine is a powerful tæniacide, but the use of it is liable to cause headache, pain in the stomach, fever, and strangury. These effects are, however, much less frequent after large than small doses. Hence the dose for an adult should be never less than one to two ounces; for a child, one drachm to one ounce according to age. It may be administered in emulsion with white of egg, or be briskly stirred in half a glass of milk and swallowed rapidly. Should it fail to act as a cathartic, it should be followed with a dose of castor oil.

3. Male fern, the ethereal extract, two drachms in four or five gelatine capsules, of which one may be swallowed every five minutes with the aid of a cup of coffee. A dose of castor oil with brandy should follow the capsules in the course of half an hour.

4. Koussou, koussin, pumpkin seeds, san-tonin, kamala, carbolic acid, zinc, and other parasitocides of less value.—*Med. News*, Sept. 11, 1886.

Dabuc on Nitrate of Silver in the Treatment of Cystitis.—The patient, a woman of twenty-eight, developed cystitis in the seventh month of pregnancy. The cystitis continued until delivery, all the time getting worse, and, owing to the obstinacy of the patient, it remained untreated and unrelieved six months after delivery. Finally, the consent of the patient being reluctantly obtained, a few drops of a five-per-cent. solution of cocaine were injected into the neighborhood of the neck of the bladder, and after the expiration of five minutes twenty drops of a fifty-per-cent. silver solution were injected into the same region. There was some pain at the time and soon after a slightly painful passage of water. Six similar applications, the injection being at times as large as sixty drops, effected a complete cure.—*L'Union Méd.*, Aug. 21, 1886.

Williams (E. T.) on Urinary Incontinence of Children Treated by Anodynes Per Rectum.—In a girl of fourteen unrelieved by suppositories of morphine, the author prescribed a suppository containing one-sixth grain of morphine and one-fourth grain extract of belladonna. Both these answered perfectly, and in six weeks she was practically cured. In the succeeding six months she did not wet more than six times, but each time was carefully followed by the use of the belladonna suppository for one week to prevent a relapse. For two years now, since the summer of 1884, she has been perfectly well and improved greatly in general health.—*Boston Med. and Surg. Jour.*, Sept. 16, 1886.

Gentilhomme on the Cautery at Red Heat in the Treatment of Inflammatory Uterine Affections.—The cases suitable for such treatment the author describes as follows: The inflammation involves the neck, which becomes enlarged in all directions; the body is likewise enlarged and spherical, retroverted, and exerting more or less pressure on the rectum. The mucous membrane of the neck and body, irritated by the inflammatory process, pours out a thickish purulent secretion. A small or large erosion occupies the cervix. These processes are accompanied by menstrual disturbances, abdominal pains, and general weakness. The author has tried all the ordinary remedies in such cases with poor success, and has become satisfied that cauterization of the neck of the womb with rest in bed is

by far the most promising treatment.—*Gaz. des Hôp.*, Sept. 4, 1886.

Snow (H.) on the Custom of Applying Escharotics to Exuberant Granulations.—As the result of some twenty years' experience, I should like to be permitted to enter a strong protest against this time-honored practice, which I have long since abandoned, as unnecessary and barbarous. The surgeon who has recourse to it causes his patient more or less acute pain, amounting, in the case of extreme burns, to absolute agony, and the healing of the wound is in no way promoted; indeed, I have seen small ulcers made larger by the destruction of new tissues at their margin. Exuberant granulations simply indicate local vitality and a healthy process of repair; if severely let alone, the wound will heal quite as quickly, under suitable dressings, as after any amount of cauterizing, and I feel sure that no surgeon who has courage once to abandon an antiquated tradition still current in the schools will ever recur to it.—*Brit. Med. Jour.*, Sept. 11, 1886.

Northrup (W. P.) on Eight Cases of Intubation of the Larynx for Croup.—Of nine patients operated on, four have recovered.

Of the four who recovered, all had diphtheritic exudate in the pharynx; all were suffocating from laryngeal stenosis; all had these symptoms: restlessness, recessions, absence of vesicular breathing behind, and albuminuria. Each patient was examined by two physicians, most of them by more than two, and one by six physicians.

Of those who died, two died of the extension of the exudate into the finer bronchi—bronchial diphtheria,—but died before pneumonia had developed.

One developed well-marked pneumonia; one died of sudden heart failure; one died of malignant diphtheria.—*N. Y. Med. Jour.*, Sept. 18, 1886.

Blaisdel (F.) on Asphyxia of New-born Infants.—I once had a case of prolonged labor, where the child was apparently born dead, and where I used artificial respiration, hot and cold water, holding the head down, etc., but ineffectually, and gave the child up, when the grandfather, who was present, said, "I can bring it to," and took the child and ran rapidly up and down a short flight of stairs three or four times. The second time going up the

child had an inspiration, and in a few moments was all right. Since that time I have seen this tried quite a number of times, and always with good success; and if we stop to think of it, we will find that there is quite a physiological principle involved here.—*Med. and Surg. Reporter*, Aug. 28, 1886.

Reynolds (E.) on Treatment of Asphyxia of the New-born.—The child lies on its back, head downward, upon the operator's forearm held nearly perpendicularly to the floor, and is retained there by his fingers, which are hooked over its shoulders. In this position the child's arms fall downward by the sides of its head, and their weight, aided by that of the thorax itself, at once draws the ribs into the position of complete expansion of the chest. If, now, the thorax be compressed against the forearm by the other hand and suddenly released, a most satisfactory respiration is the result. This method, combining as it does the advantages of an afflux of blood to the brain with a most efficient artificial respiration and an easy escape of fluid from the trachea, seems to me well worthy of a more extended trial, especially as my experience with it, though not very large, has been most satisfactory.—*N. Y. Med. Record*, Sept. 25, 1886.

Parker (W. T.) on Potassium Chloride.—The notoriously bad results following the use of potassii chloras have induced me to make use of the milder and more efficient preparation of kali chlorici.

I have called attention to its valuable properties, especially as a remedy in various forms of throat diseases, and lately I have urged its employment in the treatment of diphtheria.

I find the following a convenient formula for its use:

R Kali chlorici (Merck's) . . . 3 iv.
Syrup, simple 3 vi.
Aque distil 3 vi. M.
SIG.—3 vi every hour

—*Jour. Am. Med. Ass'n*, August 8, 1886.

Reichard (V. M.) on Jaborandi in Œdema of the Glottis.—I have found, in giving jaborandi in this disease, as well as in tonsillitis and acute general bronchitis, that it is best to give the patient a hot foot-bath, and let him take freely some hot drink. Any kind of tea will do, as it is the internal heat which we need. In fact,

hot water will do very well. It would be a good plan to let the patient take the dose of the drug in a cup of hot water, thus improvising a tea. This I find does very nicely, though patients sometimes object to enlarging the dose of a disagreeable medicine. In weak and delicate persons hot whiskey toddy may be used. I give at a dose a drachm of the fluid extract in the manner described, and if free salivation and diaphoresis do not occur in half an hour, I give a second dose. I have never yet had to give more than the second. As salivation occurs first, as a rule, and is what we most wish to produce in this disease, it is frequently not necessary to give more than a single dose.—*Coll. and Clin. Record*, Aug. 1, 1886.

Lewis (M.) on the Use of Nitrite of Amyl in the Severe Paroxysms of Whooping-Cough.—After the commencement of this treatment the child never had another attack of exhaustion, and the severity of the paroxysms seemed to be lessened, although the child coughed just as frequently, the number averaging fifty in the twenty-four hours, the amyl being given each time.

No untoward effects were at any time noticed, even when I held the bottle, containing at least 10 drops of amyl, to the child's nose.

It was difficult to judge of the amount of flushing produced by the drug on account of the flushing caused by the cough.

I am confident of the beneficial effect of the nitrite of amyl in this one case, and although one swallow does not make a summer, I think the drug will be found of use in analogous cases.—*Med. and Surg. Reporter*, Sept. 4, 1886.

Gay (L.) on the Treatment of Whooping-Cough by Sublingual Cauterization.—Three children were attacked by whooping-cough, which was epidemic. Two of the children had a turgescence about the opening of the ducts of the sublingual glands. The third had distinct ulceration at the frenum of the tongue. A foster-brother, aged 18 months, also had ulcerations about the frenum of the tongue. Three or four sublingual applications of the cautery cured all the cases.—*Gaz. des Hôp.*, Sept. 16, 1886.

Mulcachy (L. A.) on Bromine in Diphtheria.—The author finds great advantage in cases of diphtheria in giving a solution of bromine. The bromine

is simply dissolved in water in the proportion of 1 to 2500. A teaspoonful of this is given every ten minutes. He says that children will swallow it automatically even when asleep. For infants under three years of age the strength may be diminished to half that mentioned above. He cites several cases showing the successful results obtained by this method, but he points out the importance of the administration being continued for some days, and of the medicine being given exactly every ten minutes. As to local caustic applications, he considers they serve no purpose whatever, but only irritate and distress the patient.—*Lancet*, Aug. 14, 1886.

Fox (C. J.) on Ergotine Hypodermically in Bronchocele.—Mrs. A., aged forty-three, consulted me for a bronchocele of many years' standing. Her history showed similar cases in her own and husband's family. On examination, a hard, unyielding, and heavy tumor between the chin and clavicles, very prominent, was noticeable. The trachea and recurrent laryngeal nerves had become somewhat compressed, so that considerable dyspnoea existed. The amount of exophthalmos was also well marked, and it was with great difficulty that the patient was able to swallow any solid foods without great pain. It seems that the first enlargement of the gland was noticed about puberty. An exploration with the needle showed that it was *fibro-muscular* in character. I commenced by using one third of a grain of ergotine in glycerine, and gradually increased until I used one grain a day, and injected it at blood-heat. I made in all some thirty injections, making three the first day, four the next two days, and then two at the interval of two days, then at longer intervals extending over a period of nine weeks. In about two weeks the results of the treatment were apparent to some extent, with diminution in the size of the tumor and great relief from dyspnoea and dysphagia. The injections made in this case seemed to affect the nutrition of the entire body, for, during the nine weeks' treatment, she lost about seventeen pounds in weight, and at the end of my period of treatment, the enlargement had all disappeared, and at last accounts she expressed herself "as feeling entirely well." The menses during the treatment were entirely absent, but since her cure have reappeared regularly, although in a much smaller flow

than before.—*New Eng. Med. Mo.*, Aug., 1886.

Craig (J. H.) on the Local Use of Ergot in Chronic Gonorrhœa.—The author uses a preparation known as "normal liquid ergot," which he directs to be diluted with distilled water, four parts, and used daily as an injection. He claims no originality in this use of ergotine, and says it was so first used by Speere, of Quincy, Ohio.

"We need not," he says, "confine ourselves to its use in the treatment of chronic gonorrhœa, but can also use it in the acute stage. My experience in its use in acute stage is not sufficient to warrant me to advocate its use to the exclusion of the usual remedies."—*Med. Age*, Aug. 10, 1886.

Goodman (J.) on Ergot after Labor.—He claimed that ergot did not assist involution, which is a natural process, and requires a certain length of time for its completion. That we have in ergot a remedy capable of arresting after-pains, cannot be doubted, but it does so by exciting a mode of muscular action at variance with all physiological laws. After-pains are conservative, and it is better to wait until they become of abnormal severity before resorting to treatment. Ergot is capable of preventing hemorrhage, but its use is attended with such dangers that it should be employed only under exceptional circumstances. It should be an inviolable rule not to give ergot at the close of the third stage of labor, unless hemorrhage is imminent. It should then be used by hypodermatic injection.—*Four. Am. Med. Ass'n*, Oct. 2, 1886.

Potter (F. H.) on the Proper Use of Ergot in Obstetric Practice.—The proper use of ergot in obstetrical practice is limited to those cases in which, after the expulsion of the placenta, the uterus refuses to contract, or having once contracted, shows a tendency to secondary relaxation. Even in these cases, however, reliance should not be placed upon it alone, but its action should be supplemented by the other means used to provoke uterine contraction.—*Buffalo Med. and Surg. Jour.*, Sept., 1886.

Taylor (C. S.) on Piperine in Intermittent Fever.—As many cases of intermittent fever seem to resist the use of quinine and all the other remedies in ordinary use, the following cases, which fell under

my observation, will, I trust, exemplify piperine as an excellent addition to our knowledge of the treatment of this disease.

Case 1.—M. J.; aged 18, had suffered periodically, upwards of two years, with intermittent fever. It appeared that she had taken sulphate of quinine in great quantities, and in large doses, with the effect of only subduing the disease for a short time. She was sent abroad for a change of climate, and every other means had been used to cure the disease, without success.

Treatment.—She was directed to begin as soon as perspiration commenced, without regard to the heat of the skin, or quickness of the pulse, 3 grains of piperine every hour, until 18 grains had been taken; and, on the following day, when intermission was complete, the same quantity every three hours. This has, in every case, succeeded in checking the paroxysm, and as soon as that is accomplished for some days, the following pills, taken in the morning, noon, and evening, will be found beneficial: $\mathcal{R}$ Pilulæ hydrarg., gr. j; piperinæ, gr. ij; quinæ sulph., gr. iij; syrapi, q. s. Should the second paroxysm be escaped, the following pill should be taken every third hour: $\mathcal{R}$ Piperinæ, gr. v.; mucil. gum. acaciæ, q. s.

It is now upwards of three years since the patient was treated, and she has continued free from the malady.

Case 2.—Mrs. C., aged 34, had had several severe paroxysms of tertiary intermittent fever, but very irregular in its attacks. Infusion of cinchona, as well as sulphate of quinine, had been freely taken, but to no advantage. On April 15th, while taking a cold bath, she was seized with ague. At 7 A.M., I found her shivering severely. I ordered warm drinks to be given frequently. At 12 o'clock, cold shivering continued, and the symptoms were alarming; the pulse was scarcely felt. The skin was cold, universally clammy, and unpleasant to the touch. The lips were of a slate color. The countenance was contracted, the eyes sunken, and the patient evinced marks of great agitation and alarm.

Treatment.—Hot flannels were applied over the chest and abdomen; the legs and feet were rolled up in hot cloths and stone vessels, filled with hot water, were constantly kept under her arms, and along the

inside of the thighs and legs; and warm brandy-toddy was given frequently in small quantities. At 4 P.M., finding the reaction could not be brought on, five grains of piperine were given. This was with great difficulty swallowed; it was, therefore, washed down with an ounce of brandy in half a tumbler of champagne. Afterwards, full doses of the aromatic spirit of ammonia were ordered to be taken every third hour, and the champagne to be continued. At 6 P.M., reaction commenced, and, as the heat increased, the hot applications and stimulants were suspended. At 8 P.M., heat was general, and in proportion to the cold stage. On the following morning, the sweating stage commenced; and, as soon as it was general, five-grain pills of piperine were ordered to be taken every second hour, and continued for four days. On physical examination, the liver and spleen were found to be enlarged and hard, yet free from pain when pressed. The following pills were prescribed, and the patient was ordered to take one every two hours. $\mathcal{R}$ Piperinæ, gr. xxxvj.; pilul. hydrargyri, gr. xij. To be made into twelve pills. In case the bowels were not open, a wineglassful of the following mixture was to be taken when required: $\mathcal{R}$ Sulph. magnesiæ, $\mathfrak{z}$ iss.; sulph. quinæ $\mathfrak{D}$ ii.; acidi sulph. dil. 3 ij.; aquæ puræ ad $\mathfrak{z}$ xx.

It is now three months since she first had an attack of the disease. Health perfectly restored.

There are a great many patients having objection to taking quinine, in consequence of its affecting the head: but the piperine, although a powerful stimulant, carminative, and febrifuge, does not in the least degree, from personal observations, affect the sensorium.—*Br. Med. Four.*, Sept. 4, 1886.

Sotchinsky on Phosphorated Oil in Intermittent Fever.—Having tried a number of substitutes for quinine in the treatment of malarial fever, Dr. Scotchinsky (*Vratch*, No. 16, 1886, p. 293) obtained the best therapeutic results from the use of oleum phosphoratum in the shape of an emulsion (3 j. to $\mathfrak{z}$ vj., a tablespoonful three times a day). No unpleasant effects were ever observed. The drug is cheap. Tincture of iodine, tincture of eucalyptus globulus, Fowler's solution, cinchonine, and resorcin, never acted so well as phosphorus.—*Lond. Med. Record*, June 15, 1886.

TOXICOLOGY.

Wilkinson (C. H.) on Rare Effects of Quinine on the Skin.—On May 17, 1886, I was called in to see Mrs. C., a young married woman, who had just passed a large clot from the uterus, which upon examination proved to be a product of conception of two months' standing. As there was then free hemorrhage, and the os was patulous, in order to free the womb of its debris, I ordered the following :

R Ferr. and quinine citrate . . . gr. xxx.
Ergotin gr. iii.
Ext. nux. vom. gr. v.

Mix, and make caps. xii.

SIG.—One to be taken at 8, 12, 4, 8, daily, as needed.

Three of these capsules had been taken when I was called in again to see the case. On entering the sick-room my patient exclaimed : "Doctor did you not give me quinine in those capsules?" To which I replied : "I did." She then explained to me that quinine was a drug which invariably threw her into a fever, and covered her from head to feet with a brilliant, red-dish eruption. Indeed she demonstrated the fact in her scarlet appearance, brilliant eye, rapid pulse (115), and exalted temperature (101 deg.).

She was literally covered with an eruption on the skin of an erythematous variety, which was attended with a most intense itching, and which had broken out upon her after taking the second capsule. No uterine pains had been excited by the remedy, but her flow had almost ceased. There was no evidence of any inflammation of the womb, and I was forced to attribute all her objective symptoms to the quinine. She added that several years ago a then prominent physician of this city had given her a small dose of quinine and the same phenomena had followed, much to his and her surprise.

"I cannot even take Peruvian bark," she added ; "it also brings out the eruption."

In this instance the skin was covered with a roseolar discoloration, the eruption being scarlatiniform upon the body, and morbilliform upon the hands and face. A most intolerable itching of the scalp and corporal surfaces kept the patient busy all the time with her finger-nails, and reminded one very forcibly of one of the most prominent subjective symptoms of urticaria.

I desisted in the further use of the cap-

sules and placed her upon a solution of the sulphite of soda, thirty grains to the ounce, which I directed to be applied to the face and hands with the view of destroying the dermatitis in those situations.

May 25th, 12 M.—All acute symptoms of dermatitis have disappeared. A very free desquamation of the cuticle is now going on, flakes of skin two by four inches being cast off as in the case of an extensive burn. Her hands showed evidence of this desquamation to a very marked degree. A large patch of denuded cutis, two by three inches, was visible upon the left hand, while patches of dead and puckered skin resembling a number of scalds were preparing for exfoliation on the right. She says : "I can brush handfuls of dead skin from my bed every morning, and am kept busy peeling away dead pieces all over my body." Her lower limbs, which I examined, were similarly conditioned to the hands. The most disagreeable symptom referable to the skin complaint now remaining was the intense itching of the body, which kept her awake for hours last night, and which so far to-day has kept her pretty busy in trying to allay.

About one month later this lady was unfortunate enough to sustain a sixth attack of dermatitis, from the same cause—cinchona. Having occasion to require the services of a physician, she called in the old family attendant, who was out of the city at the time I was called on to treat her for abortion.

Finding the os patulous, the doctor, a very skilful physician and excellent gentleman, prescribed nearly the identical remedy that I had given at my introductory visit, viz.: Ferr. et. quin. citrat, and ergotine, he not being cognizant of the lady's idiosyncrasy. The result of this administration was a relapse of all the symptoms enumerated in the foregoing report, with the exception, or rather addition, of a much heavier exfoliation of the cuticle.—*Tex. Cour.-Record of Med.*, Sept., 1886.

Moore (W.) on Case of Bullous Eruption Due to the Administration of Iodide of Potassium.—M. M., æt. forty-seven, sought admission to the Melbourne Hospital, on the 25th April, 1886. She was complaining of a burning pain about her face, of soreness inside the mouth, of thirst, running from the nose, frontal headache, and a feeling as if the head were stuffed. The face, forehead, and backs of

the hands were tender to the touch. The skin of these parts was red and somewhat infiltrated, and amidst the redness were numerous bullæ, filled with clear fluid, circular in shape, some as large as a sixpence, some larger, and one near the upper lip was a little smaller than a two-shilling piece, irregular in shape, and evidently due to the coalescence of several smaller bullæ. The bullæ on the back of the hands and wrists were somewhat smaller than those on the face. There was no eruption on any other part of the body.

Her history was that three days previously she had come to the hospital suffering from pains in different parts of the body. She was ordered some medicine which she had been taken three times a day. This mixture was subsequently found to be pot. iod gr. v, ammon. carb. gr. v., aq. ʒ i. On the third day after the administration of the medicine she first noticed swelling on the face, especially marked about the eyes, and the condition for which she sought admission to the hospital rapidly developed itself.

Treatment.—She was ordered a bran bath; the bullæ were then opened, their contents evacuated, and the surface dusted with a powder of equal parts of oxide of zinc and starch. She also had a draught consisting of mag. sulph. gr. xc., mag. carb. gr. x., aq. menth. pip. ʒ i.

April 26th.—Temperature normal. Face still swollen. A few fresh bullæ have appeared. A friction sound can be heard below the left axilla. Ordered mag. sulph. gr. lx., acid. sulph. dil. m. xv., aquæ ʒ i., solve, ter in die sumend.

April 28th.—Face much less swollen. Burning pain disappeared.

April 29th.—Scabs forming on back of wrists and across the nose and cheeks.

May 5th.—Scabs have fallen off, leaving marks of a reddish color, slightly elevated.

June 9th.—Marks still slightly redder than surrounding skin, and slightly elevated on the hands and wrists. Discharged. The patient's stay in the hospital was prolonged on account of some pulmonary affection.

The following points were sufficient evidence that the case was one of iodide eruption and not of pemphigus: 1. The existence of some of the usual physiological effects of the drug, coryza and frontal headache. 2. The fact that she had for a few days been taking the iodide of potassium. 3. The fact that she had never

previously suffered from any similar eruption, and her age was now forty-seven. 4. The limitation of the eruption to the face and back of the hands and wrists. 5. The marked redness which surrounded the bullæ. 6. The very slight depression of her general condition. The diagnosis was subsequently confirmed by the rapid recovery under very simple treatment, pemphigus being one of the most obstinate of diseases.—*Australian Med. Jour.*, July 15, 1886.

Cutler (E. G.) on Iodoform Poisoning.—Fresh wounds or unhealthy or tuberculous surfaces are the only ones fitted for the application of iodoform.

Only a thin layer or small amount of iodoform is to be applied.

When granulations appear healthy, iodoform should be omitted and some other non-poisonous substance substituted.

At the first symptom of poisoning, or coincidently with the original use of it, compounds of the alkalis and vegetable acids are to be given by the mouth at frequent intervals, as acetate of potash. If severe symptoms supervene, transfusion with common salt solution is to be resorted to, and the wound is to be washed free from iodoform with pure water and an alkaline carbonate solution, and afterward powdered magnesia is to be dusted on.—*Boston Med. and Surg. Jour.*, Aug. 5, 1886.

The Poisoning of a Family by "Rough on Rats."—The dangers incident to the at present unrestricted sale by grocers and others of white arsenic in the form of "Rough on Rats," and the common use of this powder, thus placing it ready at hand for use by any evil-disposed person, was well illustrated in the case of the Blanchard family of Wilmington, an account of whose experiences has lately been published in the daily journals.

As it appears from the testimony given at the hearing before the court, the colored maid, of about fourteen years of age, who set the table for tea that evening, had been reproved by the mistress during the day for some neglect of duty. Of the seven persons who partook of the meal, all but two—and these children of some of the others, and not accustomed to take tea—were seized with nausea, vomiting, and the other symptoms of irritant poisoning, within five minutes after leaving the table. As these two had partaken of every other article except the tea, suspicion was di-

rected to that. When it was noted that the servant had not taken tea, as was her habit, and did not show any symptoms of sickness like the rest, suspicion rested upon her. While clearing off the table, she asked several questions as to whether if any poison had been put into the teapot, any of it would probably still remain there. During this discussion the interior of the pot was examined, and some white powder found upon the sides, so that it was set aside for further examination, she being ordered upon no account to touch it. Yet she did, when unobserved, remove it, rinsed and wiped out the interior of the pot, so that when again examined, nearly all the white powder had disappeared from where it was before seen.

The physician, when summoned, suspected the presence of arsenic poisoning, and gave proper treatment therefor. He made inquiries about the possible source of the arsenic; although none at first was thought of, the fact that a box of "Rough on Rats" had some weeks before been put away in the store-room, was at last remembered, and the box sought for, but found missing, although known to have been there but the day before. The next day it was found in another place. These and other facts led to the arrest of the maid upon suspicion of having added the arsenic to the tea.

Subsequent examination by a chemist disclosed the fact that the fluid decoction of the tea, as well as the tea-grounds and the interior of the teapot, especially of the spout, which could not be wiped out, all contained a large amount of arsenic, as did also the vomit of those who had partaken of the tea. Neither the water from the well nor the unused tea contained any arsenic, but the dirty water found in a dipper upon the wash-stand in the maid's own room was found to contain some arsenic. The chemist testified that, from comparing the size of the whole crystals of arsenic composing the powder in the box of "Rough on Rats" with those found in the undissolved lump of white powder found in the spout of the pot, and the relative amounts of small, broken fragments found with each of them, that he was of the opinion that what was found in the teapot might have come from the box; that the difference between them, so far as there was any, was exactly what he would expect would result to powder from the

box if it should be subjected to the action of boiling water such as the powder which was found in the pot must have been subjected to. These and some other facts presented to the court seemed to be sufficient cause for suspicion against the girl to cause her to be held for trial.—*Bost. Med. and Surg. Jour.*, Sept. 30, 1886.

Penrose (C. B.) Observations on Lead-Poisoning.—The failure to detect lead in the urine in cases of lead-poisoning has not, in many cases, been due to any fault in the method of examination, but to the fact that lead was not being eliminated by the kidneys. Lead is eliminated by the skin, the intestinal glands, the liver, and the kidneys. During the ingestion of lead it is often eliminated continuously by the kidneys, and can be detected in the urine. The presence in the urine, however, continues only for a few days after the metal has ceased to be taken into the system, though it may be found in the tissues for several months afterward.

The removal of lead from the tissues is hastened by the iodide of potassium. It is often assumed that the kidneys furnish the main channel of elimination in this case. The results of the examinations of the urine that have been made do not, however, confirm this view. It is probable that the chief channel of elimination differs in different cases. In some cases lead is eliminated mainly by the kidneys, in others by the intestinal glands and liver. If saturnine albuminuria is the result of efforts at elimination by the kidneys, lead should be found in the urine.—*Med. News*, Aug. 14, 1886.

Cicconardi on Lead-Poisoning.—Moulin has recently shown the presence of lead in the skin in cases of saturnism. To test this fact, Cicconardi procured a six-per-cent. solution of monosulphide of sodium; four patients were experimented on, two suffering from lead-poisoning, and two from other diseases. After well washing their chests, the solution of monosulphide of sodium was painted on. In the cases of lead-poisoning, there occurred immediately a dark discoloration, gradually becoming an intense black; in the other cases there was no alteration. On the following day the manoeuvre was repeated on the same parts, and the discoloration was very slight; but on the third and fourth days it was as deep as at first. The discoloration also appeared over the site of

a recently healed blister. Cicconardi argues that it is necessary to stimulate the activity of the skin to procure the elimination of the poison.—From *Riv. delle Clin. di Napoli*, Feb., 1886, in *Lond. Med. Rec.*, June 15, 1886.

Truman (E. B.) on Poisoning by Squills.—After narrating several cases of poisoning by squills the author concludes by saying:

1. That squill is not a safe drug to use for routine, and especially popular or lay, practice. 2. That being so variable and, when strong, so potent a drug, it should be looked upon by the profession as unsuitable for use until a solution of standard strength can be produced. 3. That in the meanwhile its use should be discontinued.—*Lancet*, Sept. 4, 1886.

Sneve (H.) on Poisoning by the Fumes of Dynamite.—On July 8, 1886, a young man engaged in boring a well about one mile north of this city, found it necessary to blast one stone in the bottom of the well, for which he used dynamite (about one pound); after blasting, he uncovered the well and left it until the next day; he then lowered a lighted lantern, believing in the adage that, where a light will burn, a life will live, and as the lantern was not extinguished he accordingly went down. As soon as he had reached the bottom, he signalled to his partner to be drawn up (the well was thirty-five feet deep and twenty-eight inches in circumference). He was brought up to within about twenty feet from the surface, when he loosed his hold and hung suspended only by his left leg, around which he had fastened the rope. As the well was so small, his head and shoulders rested against the side. The man who was hauling him up ran off in search of help, and fortunately met the hired man, who was let down, but had to be drawn up immediately, as he could not get sufficient air; on being lowered a second time, he succeeded in fastening a rope around the unconscious man's chest, by which he was drawn up.

A physician having been telephoned for, Dr. Blackmer arrived on the scene just as the patient was drawn to the top of the well.

The patient was in a state of coma, face cyanosed, eyes protruding, and pupils widely dilated; respiration sighing and irregular; frequent muscular spasms. Arti-

ficial respiration was immediately resorted to, and carbonate of ammonia administered internally, which last seemed to have a wonderful effect on the slow, irregular action of the heart, making it beat with regularity and force.

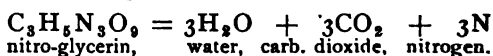
One half hour afterwards the patient's face was livid, respiration irregular, eyes staring, pupils dilated, pulse 108, extremities cold, temperature 95°, delirious, and the muscular spasms much less frequent. Hot applications were made to patient's feet, whiskey administered, and he was thoroughly rubbed, etc.

In about one hour and a half he had recovered sufficiently to get up and drink a cup of tea, after which he felt a great deal better and was able to converse intelligently, but could not remember any thing about the accident.

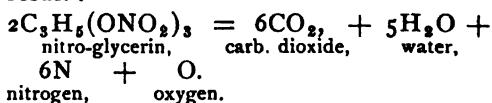
A live chicken was lowered into the well and left about thirty seconds; when pulled up it presented about the same appearance that the young man did; it could not stand upon the ground, but reeled about when prodded with a stick, falling down almost immediately; it recovered in about ten minutes. A light was now lowered and it burned as brightly at the bottom as up on the ground. There was no smell whatever at mouth of patient or well.

The patient made a rapid recovery, and ten days afterwards was completely well with one exception, viz.: his memory was so impaired that he could not remember one day the events that had transpired the day before.

Nitro-glycerin,¹ the basis of dynamite, has a chemical formula of $C_3H_5N_3O_9$, and when it explodes, according to Josiah P. Cook, of Harvard, the following reaction takes place:



Mr. Koppe, a German chemist, after several analyses, obtained the following result:



The gas in the well then was probably carbonic dioxide from the explosion of the dynamite.

¹ NOTE.—These data in relation to nitro-glycerin were kindly furnished me by Mr. C. F. Sichenor, Instructor in Chemistry, State University.

Mr. Koppe's explanation seems the most probable, as oxygen gas is formed, which, as Mr. Sichener suggested, would probably explain the burning of the light in the well.

As dynamite is being used more and more every year for blasting in mines, wells, etc., it seems to me that some test other than the light experiment should be used. Would it not be better to lower some live animal, *e. g.*, a chicken, before descending these caverns of death?

Thinking that this danger in using dynamite should be known, I close with the statement that the patient is entirely well at this writing.—*Northwestern Lancet*, Sept. 1, 1886.

Sinclair on Death Due to the Inhalation of Nitric Acid Fumes.—It seems that there had been put into the hold of the vessel a case of nitric acid. One of the bottles being broken, the acid escaped, filling the hold with its corroding fumes. Upon one of the hatches being removed the ship was thought to be on fire, and the hold, therefore, was deluged with water. The men who went below, however, discovered that what was regarded as smoke was in reality a far more irritating substance (nitric acid fumes), although at the time it did not cause a decided burning sensation in the throat or lungs. Within a few hours the men who had been thus exposed began to complain of serious illness, and in a very short time died. Three men sacrificed their lives in this manner. This accident indicates the rapidity with which the fumes of nitric acid may destroy life when brought into contact with the pulmonary tissue, even when the symptoms immediately following its inhalation do not point to a fatal issue, as was the case in the instance above quoted.—*N. Y. Med. Record*, Aug. 14, 1886.

Clarke and Suckling on the Recent Case of Poisoning by Common Sorrel (*Rumex Acetosa*).—Mr. Clarke's clinical notes are as follows.—“I was summoned to see Edwin Arthur Geary, a boy aged five, at 10 A.M., on June 12, 1886. He had been perfectly well up to the present attack. At once seeing the critical condition of the boy, I desired the presence of their own medical attendant; he not being at home, Mr. Fairley, of Aston, was sent for, and arrived about 11 o'clock. The patient was being nursed by a neighbor, and was unconscious, the face cold

and pale, forehead moist, extremities cold, respiration slow, pulse frequent and feeble. The prostration was great. There was no convulsion. The conjunctiva was only slightly sensitive to touch, the pupils small, but not markedly contracted, but later on they dilated. I learned from the father that the patient had been drinking soapy water, which had collected in the soap-bowl underneath the perforated dish that held the soap. I also learned from a neighbor that he had been eating a large quantity of the flowering stalks of the common green sorrel (*Rumex acetosa*) the night before, followed by a meal of plum cake. He then went to bed, and on the following morning he was seen drinking from the soap-bowl, and in a short time he fainted. The servant carried him downstairs to his father, who gave him an emetic of salt and water, but the emetic had not acted when I saw the boy. I at once placed him on the bed, and produced vomiting with a feather; and he ejected about three quarters of a pint of colorless, odorless, transparent fluid, containing very little mucus, but no blood, and no shreds of mucous membrane. I administered a teaspoonful of vinegar diluted, in order to neutralize the alkalinity of the soap; and gave him an enema of brandy, ordered hot bottles to the limbs and body, and a mustard-plaster to the heart. He shortly afterwards passed a copious liquid motion, and his pulse was feeble and intermittent. Mr. Fairley now arrived. Upon examining the motion, which was green in color, we found it to contain a large quantity of stalks, ribbed like the stalks of sorrel. Small quantities of brandy were administered by the mouth, and brandy was given *per rectum*; and chalk also was administered. At 2 P.M. I left the patient. There were signs of reaction in the pulse, which was fuller, soft, and 120 per minute. I saw the patient again at 5 P.M.; he was still unconscious and collapsed. Vomiting and purging had been frequent during my absence. He died about 5.30 P.M., seven hours and a half after I first saw him.

The necropsy was performed by Mr. Suckling on June 14th, forty-nine hours after death. Rigor mortis was well marked. There was no trace of external injury. The lips were cyanosed, but there was no erosion or staining. No erosion or staining could be observed on the tongue or mucous membrane of the mouth and throat. The

dura mater was tense, but healthy; as were the other membranes of the brain, except that the veins of the pia mater were very turgid. The brain itself was congested, but otherwise perfectly healthy. The stomach was empty, and, except for a small patch of congestion near the pylorus, was healthy. The small intestine contained yellowish fluid material, containing stalks of some vegetable partially digested; these stalks were ribbed, and were about the size of sorrel-stalks; some of them were two inches and a half long. The heart was flaccid and empty, otherwise normal. The lungs were a little congested at the base and along the posterior border. The liver and kidneys were congested. The condition of the heart and the visceral congestion were compatible with, and pointed to, death from collapse. Mr. Fairley was of opinion that death was due to the sorrel, the poisonous effect of which was accentuated by the soap and water. I expressed agreement with him, but suggested that the vomit, urine, contents of intestine, the soap and water, and portions of the viscera, should be preserved. Mr. Clarke having wisely secured the vomit and the soapy water, these have been analyzed by Dr. Bostock Hill, the County Analyst, and Professor of Toxicology at Queen's College, who informs me that he cannot detect oxalic acid or any other poison in any of them. The soap and water was a very weak solution of soap, and not at all poisonous.

What was the cause of death in this case? The boy, previously in perfect health, ate a large quantity of sorrel at about 7 P.M. He was quite well, and complained of no pain or nausea till the morning, when he evidently felt ill and thirsty, or he would not have attempted to drink soapy water. He drank about four ounces of the water, and was found a few minutes after on the floor almost insensible. It appears to me that slow poisoning must have been going on all night, and that the swallowing of fluid was followed by a fresh absorption of the poison, which caused immediate collapse, his getting out of bed also hastening it. Any speculation as to the chemical action between the soap and water and the sorrel helps us very little in explaining the collapse immediately following its ingestion, seeing that the soda salt, if formed, is only very slightly more soluble than the potash salt.

Mitscherlich estimated that the proportion of binoxalate of potassium present is .75 per cent. of the fresh plant, and that 1 ounce of fresh sorrel contains about 3 grains of that salt. It seems impossible that such a small quantity of binoxalate of potassium, even supposing that he ate 2 or 3 ounces of the plant, which would be a great deal, could prove fatal. It may be that there is some other poisonous substance present not known.

The case, in my opinion, was one of death from poisoning by sorrel, and this opinion is confirmed by the fact that a playmate of the boy, who had also eaten sorrel, was ill for two or three days.—*Br. Med. Jour.*, Aug. 28, 1886.

[For preliminary note on this case see ANALECTIC for July, 1886, p. 305.]

MEDICINE.

Netter on Exudative-Ulcerative Endocarditis of Pneumonic Origin.—

The conclusions to be derived from an exhaustive paper on the above subject are as follows:

The vegetation in a great number of cases is due to a stoppage and development on the endocardium of the pneumococcus. A *pneumococcic* endocarditis can be produced in animals by inoculations of pneumonic matter, provided at the time there be a traumatism, no matter how minute, of the endocardium.

The blood is the means of transmission between the pneumonia and the pneumonic endocarditis. The endocarditis may follow the pneumonia, occur with it, or even before it, in which case the pneumococcus fails to excite a pneumonia, but does excite an endocarditis. An endocarditis appearing during convalescence from pneumonia is not necessarily pneumococcic, as it may be due to the streptococcus, which sometimes develops in the state of pyæmic infection after pneumonia.

The more infectious the pneumonia the more apt it is to be followed by endocarditis. Conditions which weaken the organism favor its development. Antecedent cardiac lesions assist its production.

Death hath taken place from the fifth to the eighty-sixth day.

Pneumonic endocarditis attacks the right side of the heart more often than other kinds of endocarditis, and is more often

located on the aortic than on the mitral valve. It produces lesions varying from a vegetation scarcely visible with a lens to perforation with valvular aneurism. Myocarditis often accompanies it, which may lead to aneurisms at the base of the heart or at the aortic orifice. The vegetations are generally rounded and embolisms rare. Meningitis coincides in seven ninths of the cases with pneumonic endocarditis. Very often on autopsy the pneumonia is seen to be recovered from, a purulent condition being rare.

Endocarditis occurring with pneumonia is seldom recognized before the autopsy is made, for the reason that the symptoms of the pneumonia mask those of the endocarditis. The consecutive form of endocarditis is more easy to recognize, as cardiac symptoms with fever develop during or after the convalescence from pneumonia. Sometimes murmurs and indications of embolism point to the endocardial lesion.

The duration of the endocarditis is very difficult to determine, and varies from five to twenty days after the first indications.

This disease is liable to be confounded with infection by the streptococcus of supuration and by the bacilli of tuberculosis. From the former it differs in the absence of signs of purulent infection, while in the latter the pulmonary affection becomes aggravated.

One case of this disorder seems to have recovered; probably by the calcareous transformation which has been demonstrated experimentally—*Arch. de Phys.*, Aug. 15, 1886.

Foa and Rattone on the Pneumococcus.¹—The point most disputed in regard to this parasite is the existence or otherwise of a colorable capsule. This, described and held by Friedländer as a diagnostic sign of pneumococcus, was denied by others (Salamon), and by some considered an accessory of no importance, frequently wanting, or even existing around other micrococci (Zahl, Fränkel). The authors declare that in gelatine-cultures the capsule is never found; but, on making subcutaneous inoculations in several guinea-pigs with a pure culture, they saw appear, in the liquid drawn from the inflammatory œdema, about two days after the inoculation, an infinite quantity of pneumo-

cocci, surrounded by a capsule evident enough. This capsule has a diameter three or four times greater than that of the pneumococcus, and is very easily and deeply colorable. The authors have observed that in preparations dried by evaporation the capsules take the coloration, whilst the pneumococcus remains uncolored; they attribute, therefore, to the method of preparation the appearance of empty capsules sometimes observed by Friedländer.

According to the authors, the capsule is formed around the micrococcus when this reaches the maximum of its development—that is, in the height of the inflammation; and is better seen when the spontaneous death of the animal is not expected. The disappearance of the capsule, in animals inoculated and allowed to die spontaneously, shows that the micrococcus grows old; that this is a stage in its involution, and not, as has been asserted, a cadaveric effect. In fact, the authors declare that they have found typical capsules around the pneumococci after the exposure of the abdominal viscera to the air for two days, in a guinea-pig killed in the full development of a peritonitis from inoculation with pneumococci.

The intra-abdominal inoculations performed by the authors in animals have given the following results. 1. The pneumococcus is capable of producing local fibrinous or sero-fibrinous inflammation. 2. When introduced into a serous cavity, it is propagated to a distance by means of the lymphatic current. 3. When an exudation rich in pneumococci is placed in the thickness of the Schneiderian membrane by means of a sterilized platinum needle, meningitis is produced. 4. Pregnant guinea-pigs, when inoculated, abort in from thirty-six to forty-eight hours. The pneumococcus does not pass into the fœtus, but is found abundantly in the uterine sinuses, where, perhaps, it helps to cause the detachment of the placenta. 5. Direct inoculation of the pneumococcus in the liver or in the spleen does not lead to definite results, owing to the simultaneous development of peritonitis. 6. Inoculation of the kidney causes nephritis, with patches formed of aggregations of innumerable micrococci and few anatomical elements. 7. Experiments on rabbits were negative.—*London Med. Record*, April 15, 1886.

Stokes (W.) on Acute Myxœdema Following Tiroidectomy.—The case

¹ *Comm. alla R. Accad. delle Sci. de Torino; Giorn. internaz. delle Sci. mediche*, Fasc. iv., 1885.

was that of a young girl with enlarged thyroid. There was not only considerable deformity, but urgent dyspnoea to such an extent as to lead them to think tracheotomy might be required. He operated on the lines laid down by Kocher, and the operation was difficult. Considerable hemorrhage occurred, although the vessels were secured as far as possible before being divided. The operation was performed antiseptically, and the wound afterward dressed with sublimate gauze. Only the left lobe of the thyroid was removed. After the operation the right lobe lessened, but this decrease in size was not permanent. It again enlarged and caused so much dyspnoea that a second operation for the removal of the right lobe was attempted. The second operation was also difficult, and occupied an hour and a half. The vessels were very friable. The patient was much collapsed, and hypodermatic injections of ether were made and brandy given internally. Milk and beef-tea were afterwards given. The tumor removed weighed seventeen ounces. On the second day fair reaction occurred. All was satisfactory until the eleventh day. The pulse, temperature, and respirations, were normal; the wound aseptic, and union firm. On the eleventh day the patient was sitting up and seemed well. On the twelfth day the patient was still going on well, so far as regarded her pulse, respirations, and temperature, but she complained of a dull aching pain in her legs and knee-joints. Then an epileptiform convulsive seizure came on. Subsequently slight puffy swelling of the hands and feet was noticed, and also some mental torpidity. These symptoms increased up to the twenty-first day. The convulsive seizures occurred again and again, and each one left the patient weaker and with greater pulmonary oppression. Two days later she died. At the autopsy the lungs were found highly oedematous and the epithelium was desquamating.—*N. Y. Med. Record*, Sept. 11, 1886.

Liégeois on Intractible Hiccough Due to the Presence of Needles in the Stomach.—In the patient, a woman, a hiccough came on suddenly after a fright, and lasted for twenty-four days and nights. Bromide of potassium and sodium and ether had no effect. Chloral and hyoscyamine caused sleep and temporary relief, but the hiccough recommenced on waking.

At last the hiccough ceased, except when food or drink was ingested. Some months later an abscess formed a little to the right of the epigastric furrow, and a needle, three centimetres long, was extracted. Later eight other shorter needles were taken from the same place. From this time the hiccough ceased.—*Rev. Méd. de l'Est.*, in *Paris Méd.*, Aug. 21, 1886.

Sheild (A. M.) on a Case of Fæcal Impaction in an Infant Five Months Old.—The mother, being unable to nurse, hand-feeding was resorted to at the end of the second month. Cow's milk, sweetened, and diluted with water, was at first given, but this was stated to have caused sickness, and was discontinued. A patent farinaceous food was next employed, slightly mixed with milk; and this, it was related, was "kept down" by the infant, who seemed to improve for a time. For the last six weeks the bowels had been very confined; small motions, "like pebbles," of a clay color and very offensive, passing with much pain and difficulty. For the last week, the child had vomited incessantly, both after feeding and at other times, and had wasted rapidly. Moreover, blood and mucus passed from the bowel, mixed with liquid fæces, described by the attendant as "bloody diarrhoea." The infant had been ruptured from birth; and the nurse stated that the protrusion was returned with difficulty. Occasionally the lower bowel had been noticed to prolapse. The case had been treated with manipulations of the belly, and castor-oil. The former had increased the pain and distress; the latter remedy was at once rejected. Enemata of warm water had been administered, but hardly in a very thorough manner. Several attacks of syncope occurred in the last two days, during which the surface was cold, covered with moist sweat, dissolution seeming, to those present, inevitable.

The child was a small, delicate, female infant, and lay quietly in the nurse's lap. It was very pale; the cheeks were sunken, the eyelids closed, and it was apathetic to the approach of relatives or strangers. The extremities were cold and dusky, the temperature about 98°, and the pulse very weak. At times its face was contorted, and it drew up its limbs, and feebly screamed out with pain, again relapsing into its pristine condition of quiet apathy. The mouth was hot and dry; the belly was

tumid, hard, painful, resistant. In the left lumbar region was a hard irregular swelling, ill defined, and difficult of limitation and determination, on account of the resistance of the abdominal walls. There was a small reducible umbilical hernia. The motions were now inspected on a napkin; they had been passed that morning, and consisted of altered blood and mucus, mingled with fæcal material, have a very foul odor as of putrid flesh. On introducing a finger into the rectum, a hard mass, of the size of a small orange, was felt about two inches up the bowel. This was obviously fæcal, and, on pushing it up, it was easy to ascertain by bimanual examination, with one hand on the belly, that other swellings or masses moved upwards with it. The lowest mass, by the aid of oil, was dislodged with the finger; it was of the consistence of baked putty, and was full of farinaceous material and clots of milk, giving an acid reaction. Nothing like an intussusception or polypus could be felt.

The child was ordered enemata of olive and castor-oil night and morning, and the belly was to be gently kneaded, and rubbed with aloes liniment. The diet was restricted to small quantities of strained veal-broth given at frequent intervals, with a few drops of brandy.

On March 16th, nothing had passed from the bowel, the enemata returning unstained. Sickness had been severe, and several attacks of syncope had occurred in the night. The belly was hard and resistant.

On examining the rectum, it was quite loaded with hard, fæcal masses, an exact imitation, indeed, on a small scale, of a similar condition in the adult. These were dislodged, and brought away by the finger. They were quite hard, and seemed not affected by the oil enemata. A mixture, containing small doses of hydrocyanic acid with an alkali and carminative, was prescribed. The broth and brandy were ordered to be given every half hour in quantities of a drachm of the former to three drops of the latter.

On March 18th, there was slight improvement, for the child had been less sick, and appeared less pinched and collapsed. The rectum was cleared again to-day. The motions were softer, but still devoid of bile, white in color, covered with blood, and very offensive. There was a marked improvement in the condition of the belly. The irregular swelling in the left lumbar

region had disappeared. The quantity of broth was increased, and the brandy diminished. Peptonized milk was added to the dietary, with thirty drops of cod-liver oil thrice daily, and uninterrupted improvement continued.—*Brit. Med. Jour.*, July 24, 1880.

Haven on the Summer Diarrhœa of Infants.—It is to be remembered that the alimentary canal is outside the body, and if irritated or inflamed is to be treated so far as possible on the same principles as an open wound.

Quiet it by rest; first, through its relations to the system at large, if other conditions render it proper, by opium, bromide, or other sedatives, avoiding a depressant effect.

By rest; second, locally, through dietetic treatment; and local treatment, if possible and necessary, to restore it to its normal alkaline condition, and to soothe an irritated or inflamed condition if present. Antisepsis of the gastro-intestinal tract—so far as possible—to prevent the presence of chemically irritant matters, or absorption of morbid agents. If such matters or agents are present, their removal by suitable means.

Treat the general condition; recognizing the *physiological* cardiac weakness in infancy and making its support and a stability of action of the nervous system the ends to be attained. In case of a serious loss of fluids from the system, this must in *some* way be replaced. It is easy to cure the disease if you can keep the infant alive while you are doing it.

One often sees a baby dosed with astringents, stimulants, cardiac tonics, and supposed specifics and favorite "diarrhœa mixtures," while the diet of the child is either not interfered with or only altered by the presence of a little lime-water to the original and still potent cause of the disturbance, milk fermented or putrified as a result of thirty-six hours' exposure to the heat of a city summer.

No attempt is often made to localize the intestinal disturbance from a systematic study of the symptoms and discharges, or to differentiate between the symptoms caused by a local irritation of the intestine and a force acting through the nervous mechanism, and perhaps utterly unconnected with any local disturbance.

To treat the latter with measures adapted to the former will often yield only disap-

pointment and possibly regret.—*Arch. of Pediatrics*, Sept., 1886.

Courtade (D.) on Paraplegias Coming on in the Course of or during the Convalescence from Typhoid Fever.

—Typhoid fever may cause paralyses more or less extended or disseminated, and among them paraplegia is the most common. The onset is often overlooked because of the weak state of the patient during convalescence. These paralyses are rarely complete, and ordinarily run a subacute course. The disturbances of motility dominate over those of sensibility, the latter being sometimes wanting. There is often seen a tendinous and muscular retraction in the posterior region of the leg, with or without contracture. Different trophic disturbances are seen, including trochanteric, and sacral sloughs, followed later by atrophy of paralyzed muscles, and sometimes, when the patient begins to walk, by an arthritis.

In some instances the paralyses assume the form of acute or subacute ascending paralysis.

The duration of the disease is variable ; it may last three years. Recovery is the commonest termination.

At the commencement the lesion is probably a spinal congestion, but, during convalescence, it is doubtful whether a myelitis, or a disseminated neuritis, causes the symptoms. Malnutrition of the cord evidently exists, particularly in the anterior horns, and a descending degeneration of the nerves from this origin explains most of the symptoms. This latter lesion is demonstrable *post mortem*.

The most approved treatment consists in an association of massage, electricity, and revulsion.—*L'Encéphale*, July and Aug., '86.

French, (J. M.) on Arthritis Deformans.—The unsatisfactory results obtained from all methods of treating arthritis deformans are almost proverbial. That the disease is, in a measure, amenable to proper treatment, however, has been abundantly demonstrated.

The systematic treatment resolves itself into three classes :

1. The prophylactic, or the meeting of casual indications ;
2. The treatment of the acute stage ;
3. The treatment of the intervals of chronicity.

The first indication is, therefore, to search for the cause or any influences that may predispose to the disease, and, if possible, remove or counteract them. Anæmia, malnutrition, menstrual disorders and even such affections as are not usually considered related to the disease, but are known to be in any way capable of debilitating the constitution of the patient, should be treated. The use of iron, arsenic, cod-liver oil, and tonics, is here indicated. A change of residence from a swampy to a dry locality, or from a damp cellar to well-ventilated apartments, in many cases, will be followed by the most gratifying results. In the treatment of the acute attack the patient should be confined to bed, the affected parts elevated and placed in the most comfortable position attainable. Hot or cold applications may be made if not painful. The salicylate of soda is the only remedy which has proved of real benefit and should be given in large doses (at least fifteen grains every three hours), until its full physiological effects are produced, and even then its administration should be carefully continued for a month or more after the attack has subsided. The remedy does not act with the promptness that attends its administration in articular rheumatism, but should not, therefore, be abandoned without a persistent trial. Anodynes, especially opiates, must be used with caution, because of the difficulty with which their use is discontinued.

Iodine is the only remedy which has acquired a reputation in the treatment of the chronic periods of the disease. It may be administered in any of the official forms, the tincture, the compound solution, or in combination with potassium or sodium. It should be given with perseverance and regularity. Small doses, two or three drops of the tincture or solution (five grains of the iodine), thrice daily, well diluted, are to be employed during the first week, when it may be gradually increased to two or three times that dose. The local use of iodine is also recommended, either in the form of a tincture or a salve rubbed into the integument over the affected parts. Hot fomentations, poultices and warm flannels are frequently useful, both for the relief of pain, and for the reduction of inflammation, but heat is not always agreeable. Warm bath (100°–110° F.) are highly recommended. Medicated water

¹ See ANALECTIC for Sept., 1886, p. 399.

or moor baths have also been lauded, but their sole virtue lies doubtless in their temperature. One other measure is of the utmost importance, and should be insisted on the more because of the fact that it is so frequently neglected. I refer to the regular, perseverant exercise of the affected joints at all times, except in the febrile stages of the disease. Where the joint is very sensitive, only the most gradual passive motion can at first be tolerated: but less limited movements will soon be yielded to. The object of this procedure is to stimulate the secretion of the synovial fluid and thus prevent, in a measure at least, the eburnation and final rarefaction of the joint surfaces. It also aids in the prevention of the pseudo-ankylosis. I have seen marked benefit in a case after two months of forced exercise of a joint thus affected, without other treatment. Finally, if there is any one feature of the treatment that is, above all others, essential, it is perseverance.—*Cincinnati Lancet-Clinic*, Sept. 11, 1886.

Bernays (A. C.) on Ligation of the Vertebral Arteries; a Physiological Experiment upon the Human Subject.—The ligation of the vertebral arteries causes an immediate and very great acceleration of the heart's action, and of respiration. We know that the vertebral artery, besides numerous minor branches to the neck, is principally distributed within the skull to the cerebellum, and to the medulla oblongata, previous to forming the basilar artery, and entering into the circle of Willis. We know that the principal supply of blood for the medulla oblongata comes through the vertebral arteries.

The ligation of both vertebral arteries must necessarily diminish the afflux of blood to the medulla oblongata until the collateral circulation can be established. It seems to me very likely that the blood supply can not be perfect for a period of several weeks, perhaps even longer; or it may be permanently lessened. The channels which afterward supply the blood to the medulla will be derived chiefly from the carotid.

It was shown above that physiology at present teaches the regulation of the automatism of respiration and circulation to be dependent upon the character of the blood supply to the medulla oblongata, and particularly to the central gray nuclei of the pneumogastric nerve, near the

calamus scriptorius, at the base of the rhomboid fossa.

In our experiment, we undoubtedly diminished the blood supply; consequently, an anemia of the nerve-centres, a lack of oxygenated blood, was produced in the province of the vertebral artery. The result was a very high pulse, and an enormous increase in the number of respirations per minute.—*St. Louis Med. and Surg. Jour.*, Aug., 1886.

Paton (D. M.) on the Nature of the Relationship of Urea Formation to Bile Secretion.—The destruction of blood-corpuscles must be considered as a powerful stimulant to the secretion of bile, the liver having as one of its functions the elimination from the system of effete hæmoglobin.

Urea-production, also, is increased by the destruction of blood-corpuscles.

Bile-secretion and urea-formation bear a direct relationship to one another, and this relationship is due to the dependence of both upon destruction of hæmocytes.

The cholagogue action of salicylate of soda, of benzoate of soda, of colchicine, of perchloride of mercury, of pyrogallie acid, and of toluylendiamin, as well as their influence in increasing the production of urea, is due, in great measure, at least, to their direct hæmolytic action.

The connection of urea-production with the destruction of hæmocytes naturally suggests the question—how much of the total urea produced in the animal body in its normal condition is derived from effete hæmoglobin?—*Brit. Med. Jour.*, July 31, 1886.

Bradford (E. H.) on the Treatment of Lateral Curvature.—The subject may be summed briefly as follows:

Of the two chief factors determining lateral curvature, superincumbent weight and faulty attitudes, the latter, in the early stages of disease, is the one which offers feasible indications for continuous treatment.

Faulty attitudes can be corrected by properly directed gymnastics, and by drill.

After pronounced osseous curves have been formed, a complete correction is difficult or impossible.

Gymnastics are of great help in correcting any tendency to increase of the deformity.

The gymnastics should be carefully prescribed and efficiently carried out daily.

Proper appliances may be required, but

they should be regarded as an adjuvant to gymnastics, and as a means of retention in severe cases.

The affection is one which is easily prevented, but cured with difficulty, and treatment cannot be begun too early.—*Bost. Med. and Surg. Jour.*, Sept. 9, 1886.

PUBLISHERS' NOTES.

Horsford's Acid Phosphate.—Dr. W. W. Gardner, Springfield, Mass., says: "It seems almost tautological to recommend Horsford's Acid Phosphate, a valuable stomach and local tonic. I have made use of it in my family and practice for years. I will, however, repeat what my practice confirms, that I value it, when taken according to directions, as an excellent preventative of indigestion, and a pleasant acidulated drink when properly diluted with water, and sweetened."

Viburnum Compound.—Attention is directed to Viburnum Compound advt., following special notes. Dr. Hayden claims that this preparation has been before the profession for twenty years. Send for Illustrated Handbook, containing reports of cases, etc. Address Dr. W. R. Hayden, Bedford Springs, Mass., and mention MEDICAL ANALECTIC.

Colden's Liquid Beef Tonic is described as an excellent article for the purposes for which it is offered. Patients are said to have taken it with eagerness, and great benefit in cases where domestic beef teas and other beef preparations had become repulsive.

Pinus Canadensis—Gonorrhœa and Granular Ulcerations.—I have used Kennedy's Pinus Canadensis in gonorrhœa most successfully. I am now treating cases of chronic cervical endometritis, with granular ulcerations, and think it particularly indicated there. It was in such practice, I believe, which elicited Sims' encomiums of its merits. T. N. CLARK, M.D., Reagan, Tex.

"Crust Pepsin."—A leading chemist says: "I have experimented largely with the various pepsins on the market, and I find that 'Kidder's Crust Pepsin' to be the most active ferment I have ever tested, one grain easily dissolving over one thousand grains of coagulated egg albumen; it, moreover, shows a uniformity in strength that is foreign to other pepsins."

Iron-Alum Mass.—For indigestion, nervous or sick headache, Seven Springs Alum Mass has been used with excellent results.

J. A. DICKEY, M.D., Bristol, Tenn.

Lactopeptine.—

PHILADELPHIA, PA., May 30, 1878.

I have found great satisfaction in the use of Lactopeptine, and have ordered it frequently in cases of dyspepsia, especially where there is want of tone and defective secretion. JOHN H. PACKARD, M.D.,

Pres. Pa. Co. Obstet. Society; Surg. Episcopal and Women's Hospitals.

"Clinical Thermometers."—Those made by John Barry are endorsed by the medical profession generally.

Lactated Food.—Send to Wells, Richardson & Co., of Burlington, Vt., for sample of their food for infants and invalids.

Inebriate Home.—Practitioners having patients suffering from alcoholism or the opium habit should send for a circular of The Inebriate Home, Fort Hamilton, N. Y.

Ricord Capsules.—Send to E. H. Truex, 298 Pearl St., New York, for circulars pertaining to these capsules.

Scott's Emulsion.—Scott's Emulsion of Pure Cod Liver Oil with Hypophosphites is largely prescribed by the profession. Send for samples and mention MEDICAL ANALECTIC.

"Peacock's Marina."—W. B. Carter, M.D., Osceola, Ky., says: "Peacock's Marina is a good remedy in malaria. I use quinine to break the chills, then put them on the Fucus with excellent results."

I take much pleasure in bearing testimony to the remedial effects of Peacock's Fucus Marina, I am better pleased with its action than with any thing I have ever used as an antidote to malarial poisoning.

J. T. HERNDON, M.D., Keysburg, Ky.

Phillip's Cod Liver Oil.—In Phillip's Cod Liver Oil Emulsion the cod liver oil is combined with the phosphates as found in wheat: and while the oil is thereby rendered more palatable and acceptable to the sensitive stomach, there are added the highly nutritious and tonic properties of the phosphates as nature provides them.—*Sanitarian.*

"Murdock's Liquid Food."—The attention of our readers is called to the advertisement of this on third page of cover.

THE MEDICAL ANALECTIC

A
MONTHLY EPITOME OF PROGRESS IN ALL DIVISIONS OF
MEDICO-CHIRURGICAL PRACTICE

EDITED BY
R. W. AMIDON, M.D.

VOL. III., No. 11.

November, 1886.

WHOLE No. 35.

LEADING ARTICLES.

The Patent Medicine Evil.—We have no enmities, but speak of things as they are ; and we propose to write of those things which concern the good of the profession, and through them, of the public, in a spirit of justice ; commending those things which common-sense shows to be right ; and denouncing, without fear or favor, those things which we know to be wrong. We profess, from the beginning, an animosity to *patent medicines*, and to most of those compounds which by *courtesy*, and by *pusillanimous* consent are called *proprietary medicines* : and we define these to be, those medicines which in their preparation or composition contain any secret—or which are held as the exclusive property of any party, or are not open to free competition, or production,—and we may add to these, those compounds of articles well known, but which, in their preparation, constitute a formula, the exclusive property of one party. These are prepared in great quantity, and are put forth, ostensibly, to save the physician the trouble of thinking, and the pharmacist the trouble of preparing, or of acquiring the knowledge necessary to do so. The use of these formulas is not only demoralizing to the physician, but to the druggist, and the public. The physician loses the little knowledge of botany or pharmacy he commenced with, and the art of prescribing ; the druggist the art of scientific compounding ; and the public, the confidence in the knowledge of their physician. The quack druggist, has only to read the labels, and he is armed with a medical formula for every complaint, and feels himself as capable as any physician to prescribe. Skill is not required of him by the physician, and he thinks the doctor would give, from his stock of samples, left by the agent, the same medicine ; since his

knowledge was, equally with his, derived from the labels. We fail to see why a well-educated physician should not write a prescription, which an equally well-educated pharmacist should not be able to compound ; and if by accident, or confusion of technicalities, there should arise any error in writing, or incompatibility in compounding, why the druggist should not, by immediate consultation with the writer, remedy the error. It is true that our pharmacists should possess a reputation for skill and knowledge better than that now held, but we believe the time is not distant, when the public demand for higher attainments in chemical knowledge will force the ignorant to abandon the business. It is, no doubt, easier for the physician to write a prescription for a proprietary medicine, the formula of which *he thinks he knows*, but if he is a reading doctor, we would like to refer him to the literature of the past year, in respectable journals of medicine and pharmacy, concerning these things.

There are respectable houses, with a world-wide reputation, who are endeavoring to provide the profession with any and every article in use in medicine, in so palatable a form that the old objection of “doctors’ stuff” no longer holds. From these laboratories, equipped with every modern appliance for the production of pure chemicals, and governed and directed by chemists of superior attainments, come the official compounds of the pharmacopœia, in such a shape as to assure the physician of their purity and ease of administration. We do not need private formulas. Surely in the long list of medicinal agents, we have weapons enough with which to combat any disease, without seeking aid from unknown and irresponsible parties. It is the duty of every physician to recognize the necessity of *science in medicine*, and to cultivate and make use of *scientific sense*

in the practice of his profession. Scientific truth (and there can be none in quack medicines) is alone his authority. Where this leads he should follow. Where certainty in prescribing is within his reach, he should use it to the exclusion of uncertain compounds. In these days of scientific investigation, when it is possible to determine the exact cause of disease, it is sinful to prescribe a "cure-all" compound, in the hope that some one of its ingredients may "hit the spot."

The moment a physician delegates an attribute of his profession to alien hands, he loses the power and the respect that is due to him. If he can prescribe Jenkins' mixture of si-burnum, safe bitters, or iron compound, that moment he descends the scale of legitimate medicine, and enrolls his name among the quacks. It is true, that to maintain the standard of legitimate medicine, would be to reduce the practice and fees of those who attempt it, but the gain in self-respect, and the confidence of those who are worth having as patients, would be an equivalent.

Our respectable pharmacists owe it to themselves, as well as to the reputation of their college, to make some move towards the regulation of the sale of nostrums. The college and its work is scarcely heard of among those who would feel an interest in it. There are young men enough in this community who desire to become pharmacists, if the advantages of a good education in this branch were fully and publicly set forth. There are journals enough which would gladly publish papers and reports from the members. There is room for analysis of the food we eat, and the substances we drink, to say nothing of the medicines deleterious to health, which would interest the public generally, and gain reputation for the college. If they hide their light under a bushel, how can they expect recognition? If, like most of our public institutions, the college is in the hands of a clique, who constitute a mutual-admiration society, the sooner that is ended, the better. The drones who obstruct its progress should be eliminated. A higher education, and a better appreciation of the honor of their profession, would soon show its effects in the diminished sale of patent nostrums, and an increased demand for their own pharmaceutical products.

The corner groceries monopolize, in part, the sale of proprietary medicines; every dry-goods and fancy store sells perfumery

and toilet articles; and we are beginning to create stores for the exclusive sale of fancy drinks. With doctors compounding and prescribing their own medicines, what is there left for the druggist? We would be glad to see pharmacy attain the position to which it has a right, and a law enacted to protect it in that right. That law should regulate the manufacture and sale of those medicines, the use of which not only detracts from the value of the physician's skill, but prevents the manufacture of legitimate pharmacal products—replacing them with worthless compounds, which are detrimental to public health. Unless some such move is made, druggists may as well close their stores. If respectable journals would refuse to advertise all the humbugs and catch-penny nostrums, our druggists would be benefited.—Editorial, in *Pacific Record of Med. and Phar.*, Oct. 15, 1886.

Some Recent Contributions to our Knowledge of the Contagious Nature of Pneumonia.—Graham (J. E.) on Contagious Pneumonia.

—The first series of three cases occurred in one household during the month of February. An elderly maiden lady, of eighty-six years, was first attacked by what appeared to be ordinary lobar pneumonia, and died after a few days' illness. About one week previous to the commencement of the old lady's illness, a married woman, Mrs. A., aged forty, and her daughter, aged eighteen, came on a visit from a neighboring country town. A few days after the old lady's death, Mrs. A. took sick. Her illness was at first not of a pronounced character. The principal symptoms were those of high fever. Shortly, however, pneumonia developed. The consolidation was not of the ordinary lobar character, but appeared to be in patches in different parts of the lungs. The sputum was not rusty, but of a dark-brown color, and the elevation of temperature far exceeded what one might expect from the extent of the inflammation. The highest point reached was $107\frac{1}{2}^{\circ}$ and the range was usually over 103° , notwithstanding the use of large doses of quinine. The disease ran a rapid course, and death ensued, in a little over a week after the commencement of the attack. During the thirty-six hours before death patient had at times intense maniacal delirium, when it was very difficult to keep

¹ See MED. ANALECTIC, July, 1886, pp. 312-14.

her in bed. The treatment consisted of quinine, often in 20-gr. doses, stimulating expectorants, and the free administration of stimulants. The attack throughout very much resembled the acute septicæmia which sometimes follows confinement.

One or two days after the commencement of Mrs. A's sickness, her daughter became ill. She suffered in almost the same way as her mother. The first symptoms were those of a high febrile state: Chill followed by temperature of over 103° ; pulse 120; tongue furred, often dry and brown; and occasionally slight delirium was present. The consolidation of the lungs then developed. This condition appeared in patches, and was not so extensive as in her mother's case.

The sputum was more rusty in character, and did not at any time present that dark brown; appearance previously described; nor could it be said to exhibit the well-known appearance characteristic of sthenic pneumonia.

The disease runs a severe course, the temperature keeping up over 103° , notwithstanding the use of 20-gr. doses of quinine. In about a week after the commencement of the attack the patient showed signs of improvement, but the convalescence was very slow; She suffered from intense weakness, from which she did not recover for months.

Looking upon the case as one of a very low type of fever, allied to erysipelas, we determined to treat her from the very commencement with iron in large doses. She took 15-minim doses of the tincture every three hours, which, with the quinine, formed the principal medical treatment.

Another series of cases occurred as follows: A patient about thirty-five years of age, the mother of a family, was confined in the latter part of May. Nothing unusual occurred at the time of her confinement, except that the fœtus was an acephalous monster. The patient did well until the seventh day. Four days after the confinement, a little girl, about eight years of age, became ill with pneumonia. The disease was lobar in character, ran a severe course, and terminated fatally in about a week. Three days after the development of the pneumonia in the child the mother became ill and developed the same trouble. The constitutional symptoms were intense—out of all proportion to the local lesion. It ran a severe course and terminated in recovery.

The convalescence was very slow. The treatment in the case of the child was that ordinarily given in pneumonia—quinine in large doses, stimulating expectorants, and stimulants in the later stages. In the mother's case iron was given in addition to the other remedies: tinct. ferri. mur., 15-minim doses.

The third series of cases occurred in the practice of Dr. Ferguson, and were described by him in a paper read before the Toronto Medical Society. Through the doctor's kindness I had the privilege of seeing them with him. A little boy, about nine years of age, went on an excursion to Lorne Park on the 24th May last, caught cold, came home, and developed pneumonia. The disease ran the ordinary course, but convalescence was very slow. Nine days after the commencement of his illness, Frank, aged nineteen, had a chill while at his work as a bricklayer's help, and came home. On the next day his temperature was 105° . He had cough, but the chest-symptoms were not well defined. He had, however, pain in the left side. A few days later there were undoubted signs of pneumonia. He made a good recovery.

A few days subsequently to the second case, the sister, aged sixteen years, became ill. She had a chill followed by fever. Pleuro-pneumonia developed. There was great prostration in this case, and stimulants with iron and quinine were given freely. She recovered in about four weeks. The treatment in all three cases consisted of iron, quinine, stimulants, and stimulating expectorants.

Another set of cases, the fourth in this paper, occurred in the practice of Dr. Ferguson, to whom I am indebted for the notes as well as for some quotations from foreign authors. Miss L., aged nine years, was taken ill on April 12, 1886, with symptoms of pulmonary trouble, as feverishness, hurried breathing, and rapid pulse. Her condition was on this day very obscure, and an accurate diagnosis could not be made out. On the 13th her condition was still obscure, but lobular pneumonia was suspected. On the 14th she was in the same state. The constitutional symptoms were altogether out of proportion to the amount of lung disease. On the 16th there was no doubt but that there was a slowly progressing consolidation of the right lung, extending from below upwards. She

rapidly grew worse and died on the 17th, with well-marked signs of consolidation.

Master L., aged three years, showed symptoms of malaria on April 27th, ten days after his sister's death. On the 28th, during the forenoon, he had a violent convulsion. When first seen he had a high fever, temperature 104° , pulse rapid, cheeks flushed, and tongue furred. He was in a very excited condition, so that no physical examination was made that day, but the mother was told that inflammation of the lungs was suspected. On the 29th and 30th this opinion became thoroughly established. He had a severe attack of pneumonia, and after an illness of three weeks gradually recovered. The little boy was in the room along with his sister during her illness.

A condition common to nearly all of the cases given was the severity of the constitutional symptoms, and the relatively small amount of the local inflammation.

Gemez, of Lyons, reports four cases occurring in the same family. The interesting feature in connection with them was that one case was contracted away from home, and when the patient was brought home the disease was quite advanced. Three others took it and one died.

Coulthard, of Fredericton, N. B., reported in the *Canada Lancet*, 1883, two cases of pneumonia of the right side in a man and his wife, both aged seventy-three, of healthy, rugged constitution. The wife was first seized with the disease after doing "a moderate washing," and it ended fatally on the sixth day. On the next day the husband, previously quite well, but who alone and assiduously had attended upon his wife during the first three days of her illness, was attacked in precisely the same manner, and the disease pursued a similar course, ending fatally on the fifth day.

Sée, in his recent work on disease of the lungs, gives a large number of instances of pneumonia occurring as an epidemic in prison and barracks, in villages, in houses, and in cities.

Under the head of family epidemics, the following instances occurred, which point more strongly to the contagious character of the disease than any we have yet narrated :

"An old man, seventy-three years of age, died on the sixth day of adynamic pneumonia. His daughter, who had come from a distant quarter of the city, and who

had lavished on the patient the most assiduous attention during the first three days of the sickness, was taken the day after her father's death with chills and malaria, and underwent a frank pneumonia, from which she recovered in about ten days. Her son, a volunteer in the infantry, who had obtained a furlough of two days to visit his parents, returned to his regiment, fell sick two days after his arrival in camp, and entered the military hospital. It appears from the hospital records that he was affected with pleuro-pneumonia, getting well in about a fortnight."

I will presume to draw the following conclusions from my paper :—

1. That lobar pneumonia is in almost, if not in all cases, an essential fever.
2. That it is a parasitic disease.
3. That it frequently occurs in the form of epidemics.
4. That it occasionally has appeared to be contagious.
5. That the disease, in an epidemic or contagious form is nearly allied to erysipelas.
6. That the early and persistent administration of tincture of iron is the proper treatment for these cases.—*Canadian Practitioner*, Nov., 1886.

Thane (P. T.). Is Pneumonia Contagious?—During the past eighteen months I have had under my care three cases of pneumonia occurring in those nursing patients with pneumonia.

1. On January 22, 1885, I visited, about twenty miles from town, two sisters ill in the same room; Charlotte B., aged twenty years, and Mary B., aged thirteen years. They both took ill on the 16th of January with rigors, fever, etc., and, when seen, had all the physical signs of pneumonia; both had the right base affected. Mary was a strong, quiet, and docile girl, had her crisis on the 23d January, *i. e.*, on the 8th day, and made an excellent recovery. Charlotte was just the reverse—nervous and excitable: some six months previously I attended her for a well-marked attack of chorea. Her pneumonia was accompanied by continuous high fever and delirium, and she died on the 27th January, the twelfth day of the disease. On the 25th a third sister, Alice B., aged eighteen years, complained of a cold and earache. She was a strong, hearty girl, with great muscular development, and very quiet by nature. Up to this day she had performed most of

the nursing of the two sisters above mentioned who were in the same room, especially of the night work. On the evening of the 25th she had a rigor. On the 28th her father came to me, saying she had a bad cold, and got medicine for her. On the 29th she was worse, and I saw her with Dr. Hoets, when we diagnosed left basic pneumonia. She died the next day, the sixth day of the disease.

2. On June 8, 1886, a child, Mary L., aged nine years, was brought into town from her home, distant about twenty miles, with right apex pneumonia; this commenced on June 1st; she had her crisis about the 11th, and made a good and quick recovery. In the same cart with Mary L. there came into town a man, Charles T., aged forty-eight years, a neighbor of the L's, and living on the same creek, about a stone's-throw from them. Owing to the want of accommodation in town these two, the man and child, had to occupy the same room in an inn, and not one of the best either. Charles T., only stopped two days in this room when he was removed to the Goal Hospital, but he came again under my care, being transferred shortly after to the General Hospital. He had pneumonia of the left base, commencing on June 3d, and had a crisis on June 12th.

On June 10th Thomas L., aged forty-six years, and father of Mary L., came into town and helped to nurse his child, sitting up with her the nights of the 10th and 11th. In the middle of the night of the 12th I was sent for and found him shivering, with a temperature of 103° F., P. 108, pain in side, etc. Pneumonia developed at the left base, and I had him moved to the hospital on the 14th. He was a very tall and thin man, of no stamina whatever. He sank and died on the 20th of June, the ninth day of the disease. I should mention that Thomas L. had not been living in his own home for a fortnight previous to his coming into Yass; he was away working and in good health.

3. On July 12, 1886, Florence W., aged nine years, was brought to me suffering from a feverish cold. She had, on examination, pneumonia of the left base, having shivered on July 11th. On the same day I was asked to see her brother, George W., aged twenty years, who resides in this town. He had a temperature of 105° F., was delirious, and had all the physical signs of pneumonia of the right

lung. He had a severe rigor the day previously; so that brother and sister, although living ten miles apart, contracted the same disease on the same day. These two had to be nursed in the same room, and were chiefly nursed by their mother, Mrs. W. Florence W. had well-marked choreic movements of the whole body from the 13th until the crisis on the 17th, which was marked by a fall of 5° F. in a few hours. She also had a loud systolic murmur at the apex of the heart, audible all over the back. The murmur still continues (August 11th,) and she is jerky to a slight degree in her movements; otherwise she has made a good recovery. The mother informs me she had scarlet-fever eight months ago; since then has had St. Vitus' dance on and off, but no history of rheumatism or joint affection.

George W. is making a slow recovery; temperature kept very high to the 15th, and delirium up to that day; since then he has been slowly improving, temperature slowly coming down; no sudden crisis. Now, August 11th, the lung has not perfectly cleared up.

From the 18th to the 21st I saw nothing of Mrs. W. I was told she was indisposed, and I thought she was only resting. However, I was requested to see her on the 21st, when I found her with a temperature of 103° F., P. 132, R. 48, pain in the right side, cough, and expectorating blood in the sputum. It appeared she had shivered on the 18th. There were physical signs of pneumonia of right base; she had her crisis on the 25th, and has since made a quick and good recovery.

Here we have three distinct cases of nurses, whilst attending on patients with pneumonia, contracting pneumonia themselves. It is certainly a strange coincidence, if it be nothing more, and, I think, worthy of record, although, for myself, I am of opinion that it is nothing more than a coincidence; but maybe I am prejudiced, and this evidence is not sufficient in itself to convert me.

Now in each case the nurses were in a most suitable state for contracting pneumonia, either from the patients or *de novo*, as they were debilitated by night-watching, anxiety, and very irregular living. In the first instance recorded Alice B., on the night of the 24th, passed part of it in a slab outhouse, and as it rained heavily all the night, and the room was any thing but

waterproof, it is therefore quite reasonable to suppose she caught a severe chill; but in the other two cases there was not the slightest history of catching cold, or of exposure of any kind. Yet I cannot help thinking that they, in their weak and susceptible condition, did contract such a chill, or were so exposed that pneumonia resulted therefrom. The original patients did not contract the disease by contagion, but, presumably, through the influence of certain atmospheric changes; and it is quite possible that the nurses, being subjected to similar changes,—for the condition of the atmosphere was, as far as I could judge, about the same for the time being,—should also contract the same disease.

Though I say presumably through the influence of certain atmospheric changes, it might be said that pneumonia being a specific disease, the original patients were exposed to the specific cause, whatever that may be.

If pneumonia were contagious, or any form of it—granting that there be two forms, a sporadic and an epidemic form,—we should expect, considering its frequency, to have many examples of it, instead of but few isolated cases here and there. Another singular point of coincidence in these cases is, that there were two original patients who contracted the disease on the same day in two instances, and in the other about the same time, and that they had to occupy the same room, so that it lends considerable weight to the idea that under certain favorable conditions pneumonia is contagious; two of these conditions being, I should imagine, aggregation of pneumonic patients in the same room, and debilitated state of those in constant contact with them—as nurses, for instance.

We might consider for a moment upon what grounds many regard pneumonia as an acute specific disease, and they chiefly do this on account of the pyrexia.

The sudden onset, continuous fever for a definite number of days as a rule, and the usual termination by crisis, and all this without any apparent connection with the lung affection, point to a specific or general disease. The fact that pneumonia so frequently occurs in epidemics, also seems to point to the same conclusion. I have heard it argued that pneumonia differs from one of the acute specific fevers in that one attack does not protect against a second, but rather predisposes to it; yet an

attack of diphtheria, which all acknowledge to be an acute specific disease, does not protect against a second; also with epidemic influenza, one attack renders the patient more liable to another.

With respect to the contagiousness of the acute specific diseases, we see that the degree varies not only in the same disease, but also between different diseases, some being more contagious than others. Take, for instance, acute idiopathic erysipelas; this is acknowledged by all to be contagious, and although I have met and treated many cases of it, I have never seen it spread to others, and I believe I am correct in saying that its power of contagion is not great. Might not pneumonia, therefore, be contagious in a slight degree?

To sum up: it must still be left an open question whether pneumonia, in certain forms and under certain conditions, may not be contagious, but the evidence seems to be accumulating pointing to the fact that it is, and it seems quite possible that in a few short years our ideas of a short time back may be reversed.—*Australas. Med. Gazette*, Sept., 1886.

Shaw (A. B.) on Vaso-motor Perturbation in the Etiology of Pneumonia.—Granting that there must primarily be some peculiar vice of constitution predisposing to pneumonia, are we not justified in regarding (1) interrupted or faulty digestion of an acute character as a common cause of pneumonia, particularly that variety known as catarrhal, justly to be classed as but second to exposure to variations in temperature?

(2) That pneumonia, when produced by this cause, is due to perturbation of the vaso-motor centre presiding over the nutritive changes in the lungs?

(3) That this perturbing influence is productive of vaso-motor paralysis in the portion of the lung subsequently inflamed?

(4) Does not exposure to great extremes of temperature cause pneumonia, by inducing neuro-paralytic hyperæmia in a circumscribed area?

(5) Does not the fact that, as a rule, but a portion of one lung, and that portion a complete lobe or lobes, harmonize more perfectly with the theory that the disease is preceded by perturbation of the particular vaso-motor centre or portion of the great vaso-motor centre presiding over the nutrition of the area involved, than it does that pneumonia is caused by a microbe?

(6) Eccheveria, in his work on epilepsy, states that, in investigating the pathological changes in the sympathetic system and nerves connected with it, he has found redness and enlargement of the pneumogastric in cases of pneumonia. The medullary substance appeared to be broken up into minute fragments, and the external membrane of the primitive fibres, as well as the perineurium, display a great abundance of nuclei. Do the micro-organisms found in the inflamed lung in pneumonia produce these results?

(7) Is the fact that the microbe is found in the inflamed portion of lung, credible evidence that this micro-organism caused the inflammation of the lung, or is it not more reasonable to presume that the inflamed area affords a nidus peculiarly adapted to the rapid growth and propagation of the micro-organism, which, under other circumstances, would have been, although freely inhaled, unfruitful?—*St. Louis Cour. of Med.*, July, 1886.

Murray (R. M.) on Some of the Physiological and Therapeutic Effects of Water at Different Temperatures, with Special Reference to Obstetric and Gynecological Practice.—In water at 120° F. we have an agent of immense power in controlling the local circulation in an organ, provided we can bring it to bear directly on the part. Accordingly, a stream of warm water directed into the vagina cannot fail to affect, in a very direct way, the circulation in the uterus. The smaller blood-vessels will respond in such a manner that their calibre becoming narrowed under the stimulating effect, the abnormal blood supply will, to a large extent, be cut off, and the resulting phenomena of inflammation checked. The use of this agent in pelvic inflammation is now recognized as being of so much importance, and is so much employed by gynecologists generally, that I do not need to dwell on it. I hope the action which I have shown it to possess—in causing contraction of blood-vessels—may help to convince any who may have had doubts of its efficiency.

Its efficiency in promoting the tonic contraction of non-striated muscle at once draws attention to its use as a promoter of uterine action. The conditions in which we seek to excite uterine contraction, when it is deficient or absent, may be divided into two classes :

1. Those in which the contents of the uterus have not yet been expelled.

2. Those in which the proper contents of the uterus have been expelled, but where the risk of bleeding is imminent from the absence of the natural contraction of the uterus.

Its efficiency in the first of these conditions I shall best illustrate by the following case : In May, 1883, I was called to see a patient whom I found three months pregnant, and in whom profuse hemorrhage and regular pains had been going on for some hours. The patient had had two previous miscarriages, but no living child. On examination, I found the vagina full of clots, the os rather less than a florin, and the ovum could just be reached by the tip of the finger. I made an effort to introduce my finger into the cavity, but, even with the patient under chloroform, I failed to pass beyond the cervical canal. I resolved to plug the vagina, but before doing so proceeded to wash it out as a precaution against sepsis. The nurse provided me with water just tolerable to the hand. In order to provide against any water entering and distending the uterus, I conveyed the long vaginal tube with my fingers into the posterior fornix, and retained it there while the water was thrown in. After two or three syringefuls had been injected, I found the water so warm that I felt compelled to withdraw my fingers, but just as I was doing so, was surprised to find the entire ovum projected through the os into the vagina, and actually pushed into my palm.

Since that occasion I have had two similar cases in which the douche was equally effective in securing expulsion of the ovum ; and in all cases where the abortion is inevitable, where hemorrhage is going on, and the os dilating, I should adopt it as a routine practice. If it should fail, its use in no way prejudices the employment of the plug or the sponge-tent, should they be necessary ; and should it be effective, as I believe it will be in most cases, the serious risk of sepsis in the use of the plug or tent will be avoided.

It is, however, in those cases where, after the contents of the uterus have been expelled, and that organ remains flabby and relaxed, and where hemorrhage is occurring or is imminent, that the value of this agent most appears. I cannot enter fully into the consideration of the question of

the use of hot water in post-partum hemorrhage here, but must content myself with a general summary of the advantages which can be claimed for hot water as a uterine hæmostatic.

(1) *The rapidity of its action.*—The results of experience amply bear this out. I am surprised to notice, in a discussion at the American Gynecological Society two years ago, Dr. F. Barker stated that his chief objection to the use of hot water was its taking twenty minutes to act. Dr. Barker's experience is surely singular in this respect.

(2) *The duration of the tonus produced.*—This gives time for the formation of coagula, so that by the time relaxation begins the bleeding sinuses and vessels are plugged securely.

(3) *The absence of vascular reaction.*—Every one who has employed cold applications to the bleeding uterus must have been struck with the tendency to recurrence of the hemorrhage some time after it has appeared to stop, and the rapidity with which the uterus relaxes and assumes the characteristic doughy feeling. Nothing is more striking in the use of hot water than the persistence of the tonic rigidity of the uterus which follows its employment.

(4) Further, the remarkable fact which comes out as to the *absence of exhaustion* following its use, is one of the most important advantages of hot water. It is undoubted that non-striped muscle will respond to the stimulus of hot water time after time, and with increased vigor, whereas cold water seems to exhaust its contractility almost at once. The importance of this distinction in the event of a recurrence of the hemorrhage cannot well be overestimated.

(5) I would now draw attention to the point which is often apt to be overlooked in comparing the values of hot and cold stimuli. It is almost inconceivable how great must be the violence of the shock which the exhausted system suffers from the immense loss of natural heat which accompanies every application of cold to the mucous membrane of the vagina or uterus.

What could be better calculated to extinguish the last flickerings of vitality than the drenching of an extensive vascular surface with a stream of ice-cold water? On the other hand, the hot application, while doing all, and much more, than the cold to check hemorrhage and excite contraction,

will add to the exhausted system much of the essential heat which has been lost in the escape of the heat-distributing fluid. Were the values of the two applications equal in every way but this, this alone, in my opinion, would place hot applications incomparably above the others in therapeutic efficiency.

In plastic operations about the vagina and perineum its value in checking oozing has been long recognized by gynecologists, and I am often surprised that in plastic operations about the face and elsewhere surgeons do not avail themselves of this means of saving their patients much blood and themselves much trouble.

Lastly, in hemorrhage from the stomach, *c. g.*, gastric ulcers, I am convinced that better results by far would be obtained by making the patient sip or drink water at 120° to 140°, than by the use of ice, or mineral or vegetable astringents.—*Edinburgh Med. Four.*, Aug. and Sept., 1886.

Vergely (P.) on Enchondroma of the Femur; Amputation; Dissemination of the Growth in the Lung and Heart.—The patient, a healthy man, giving no history of traumatism, noticed at the age of twenty a small tumor growing from the lower inner surface of the left thigh. It grew, causing some dull pain for two years, until it attained the circumference of fourteen centimetres, when amputation of the thigh was performed, the heart at that time seeming entirely healthy. The wound healed kindly. Forty-five days after the operation the patient had severe vertiginous attacks, which passed away. Nine months after the operation, vertigo returned, and there commenced severe pains in the shoulder-blades. The patient was pale with cyanosis of the nose, cheeks, lips, and hands, which parts were cold. The heart was again examined, and found notably enlarged, with a systolic murmur over the pulmonary artery. There was dyspnœa, with slight cough and abundant mucous expectoration. The pulse and respiration became very rapid; the temperature was decidedly subnormal, and œdema set in in the leg, and gradually crept up and invaded the trunk. Vomiting of mucus and later of blood, with an icteric hue to the skin, were some of the final symptoms, the patient dying about eleven months after the operation.

On autopsy, some clear serum was found in the peritoneal cavity. The liver was en-

larged, and of the nutmeg variety. There were cartilaginous deposits in various parts of the lungs, and an irregular tumor, apparently originating in the inter-ventricular septum, and extending, surrounding, and compressing the origin of the pulmonary artery and aorta, and very much encroaching upon the ventricular cavities.

A microscopical examination of the neoplasms showed them to be true enchondromata.

Michaloff¹ reports several similar cases, which are better presented briefly in tabular form :

No.	AGE; SEX.	OBSERVER.	PRIMARY GROWTH.	SECONDARY DEPOSITS.
1	M.; 58.	Michaloff.	Buttock.	Pul. art.; pleura, spleen, and brain.
2	Bitch.	Virchow.	Breast.	Pleura and lung.
3	M.; 50.	Mullert.	Abdomen.	Spleen.
4	—	Volkmann.	Hand.	Lungs.
5	M.; 37.	Paget.	Testicle.	Kidney, pul. art., and lung.
6	F.; 37.	Baum and Weber.	Fibula (right).	Left toe and lung.
7	—	Forster (Virchow).	Parotid.	Dura mater (cbl. ?) and lungs.
8	M.; old.	Wilms.	Chest wall.	Pleura and lungs.
9	M.; 27.	—	Symmetrical, hereditary exostoses and enchondromata of the entire skeleton.	Lymphatics and iliac veins. Cartilaginous emboli in heart and lungs, and nod. in the liver.
10	M.; 30.	—	Testicle.	Abdomen and lungs.
11	M.; 34.	—	Shoulder.	Pulmonary artery and lungs.
12	Girl.	—	Thigh.	Tumor of lung, wt., 2 lbs; of pleura, 3 lbs.
13	—	Wartmann.	Parotid.	Recurred in same region, with cartilaginous emboli in the temporal and auricular arteries.

Michaloff concludes that there are enchondromata, which, by penetrating the lymph or blood-vessels, may, after removal, recur locally or at a distance from the original growth. This process is generally embolic, the vessel walls not necessarily participating in the pathological process.—*Lyon Méd.*, Oct. 10 and 17, 1886.

THERAPEUTICS.

Geneuial (H.) on Solanine: Its Analgesic Properties and Use in the Treatment of Painful Maladies.—Solanine was discovered, in 1821, by Desfosses, a pharmacist at Besançon, in the berries of the *Solanum nigrum*. It has been

¹ Contribution à l'étude d l'enchondrome avec métastases.—Thèse de Genève, 1882.

found in different parts of other members of the solanum family, and also in the sprouts which grow from potatoes in dark cellars. It is a poison to the protoplasmic disc at the termini of motor-nerve fibres and to organic life. It has a narcotic action on the medulla, cord, and nervous trunks, which places the drug among analgesics. It can be taken in amounts of gr. i. to gr. v. in a day with no danger; and under the form of the hydrochlorate, can be given hypodermically. It has none of the drawbacks of morphine and atropine, is not cumulative, and carefully handled is harmless. It does not cause cerebral congestion. In all ailments it can be used to combat excitement, spasm, and pain.—*Bul. Gén. de Thérap.*, Sept. 30, 1886.

Carles (P.) on the Relief of the Irritation from Iodine.—Some people suffer bitterly after the application of the tincture of iodine. M. Carles has found that almost any alkali will relieve this distress at once—a weak solution of ammonia, soda, wood-ashes, or even common soap. On tender skins such applications may be too strong, and the alkaline sulphites, bisulphites, or hyposulphites, will suffice.—*Rev. de Thérap.*, Oct. 15, 1886.

Oxley (M.) on a Suggested Alteration in the Compound Liquorice Powder.—Having found that the above preparation produced very severe griping in many instances where I had ordered it, the griping being particularly severe in some of my younger patients, I have ordered the following formula for some time past, in which anise fruit is substituted instead of the fennel, and one fourth part of ginger is added. The altered formula runs thus—senna and liquorice-root, of each 2 parts; anise fruit and sulphur, of each 1 part; sugar, 5½ parts; ginger, ¼ part. This altered preparation is quite as satisfactory in its laxative properties, is less liable to gripe, and is as pleasant to take as the officinal powder, and I would suggest its trial in cases where the powder as now prepared produces the disagreeable effects to which I have referred.—*Lancet*, Oct. 2, 1886.

Wood (Geo. A.) on Yerba Santa as a Carrier for Quinine.—One after another of the devices employed failed to accomplish the desired result, until a few years ago it was discovered that the leaves of the yerba santa contained a principle which would effectually do that which had so long been vainly attempted. By whom

the discovery was made it is probably impossible to state; but to Mr. J. S. McCleary, for years a practical druggist in this State, belongs the credit of bringing it to the attention of the profession. Having ascertained its power in this direction, he set about the preparation of the drug in a liquid form in which quinine could be held in suspension. After numerous failures he, at the end of eight months' experimentation, found the following to be the best method of preparing it, and has since used it under the name of elixir of yerba santa: yerba santa six ounces, orange peel two ounces, cinnamon, cloves, and cardamon seeds, of each three drachms; coriander seed, caraway seed, anise seed, and cochineal, of each two drachms; glycerine one pint, alcohol one half pint; water a sufficient quantity to make six pints; white sugar four pounds. Powder and mix the herbs and seeds. Mix the alcohol and glycerine, with which moisten the powder and pack in a percolator, and percolate six pints—adding sufficient water to make the quantity. Dissolve the sugar in the percolate with a gentle heat.

This preparation will disguise the bitterness of quinine to the extent of about three grains of powder to a drachm of the elixir. This is readily taken by a child or the most fastidious adult. It is also a very pleasant vehicle for the administration of carbonate of ammonia and numerous other remedies, which, though extremely useful, are also very unpalatable as usually prescribed and dispensed.—*So. California Pract.*, Oct., 1886.

Steele (J. G.) on Manzanita.—The manzanita (*Arctostaphylos glauca*) is a dense growing shrub with a peculiar green foliage; which, contrasting with its thorny claret-colored stems, early catches the eye of the tourist and new-comer, and is quite familiar to the inhabitants of California. Experience has proven it to be a most valuable medicine, rivalling and excelling in its therapeutic effects many well-known and costly foreign drugs. The Manzanita occurs pretty generally throughout the State, in the coast valleys and the ranges of the Sierra Nevada, up to near the limit of perpetual snow.

The name "manzanita" is derived from the Spanish word "manza" (apple), and signifies "little apple."

The leaves are the portion of the plant used in medicine. When chewed they ex-

cite to a marked degree the flow of saliva, and give a peculiar strongly astringent, slightly bitter taste, afterwards sweetish. Water and alcohol, preferred a mixture of equal volumes of each, extracts its active principles. The leaves and wood both burn with a bright, quick, and clear flame, which gives forth an intense heat, leaving but a small amount of ash. Manzanita is astringent and tonic, with a specific direction to the urinary organs. It would doubtless prove useful as an anti-lithic, and cases have been reported of its having been extremely serviceable in gravel, acting, as it was thought, partly by direct action on the kidneys and partly by giving tone to the digestive system, thereby preventing a secretion or precipitation of calculous matter.

Diabetes, catarrh of the bladder, incontinence of urine, gleet, leucorrhœa and menorrhagia are among the diseases which would doubtless be considerably alleviated, and in the majority of cases, cured by the judicious use of the manzanita.

The fluid extract, which should be made so that one fluid ounce represents one troy ounce of the leaves, can be given in doses of thirty to sixty drops, three times a day.—*Pacif. Record of Med. and Pharm.*, Oct. 15, 1886.

The Treatment of Ivy Poisoning.

—A great deal has been published of late on this subject, and a brief summary of the different methods may not be out of place.

Dr. F. L. James,¹ of St. Louis, relies entirely on the local use of a strong bicarbonate of soda solution.

Dr. J. M. Buzzell,¹ of Portland, Me., uses with the best results the following local application:

℞ Sulphate of Zinc ʒ ss.
Olive oil ʒ viii.

This is to be well shaken and applied to the skin, which is then covered with old linen cloths.

Dr. H. Hahn,¹ of Hastings, Minn., has used, with more benefit than any thing tried heretofore, the following mixture:

℞ Solution of caustic ammonia . . 3 ss.
Carbolic acid ʒ i.
Olive oil ʒ iii.

Compresses wet with this solution to be applied every two hours. If there is much pain, cover compresses with an ice-bag.

Dr. R. G. Williams,² of Whitney, Tex.,

¹ *Therap. Gaz.*, Aug., 1886.

² *N. Y. Med. Record*, Sept. 18, 1886.

uses a decoction of common cup-oak bark boiled to the consistency of tar, and painted over the part two or three times daily.

Dr. J. B. Kell,¹ of Delphos, Ohio, employs compresses wet with a saturated solution of the chlorate of potash.

Dr. J. R. Flowers,¹ of Columbus, O., gets instant relief by the local use of the fluid extract of boneset (*Eupatorium perfoliatum*).

Dr. W. H. German,¹ of Morgan Park, Ill., uses the official glycerite of tannin.

Dr. L. C. Winsor,¹ of Spirit Lake, Ia., has experienced little benefit from local applications but praises highly the internal use of sol. of arsenite of potash to the production of physiological effects.

Dr. J. W. Lilly,² of Toledo, O., uses an ointment containing bromine.

℞ Bromine	gtt. xxx.
Vaseline	℥ iii.
Glycerine	℥ ii.
Cologne	q. s.

Apply morning, noon, and night, first washing the poisoned part with salt water. In half to one hour wash off with any fine soap.

Dr. Austine Brown,³ of Sioux Falls, has employed bromine in the following formula :

℞ Bromine	gtt. x-xx.
Ol. olivæ sen.	
Ol. Amygd. dulc aa	℥ j. ℥

Apply freely, four times daily. Wash with warm water and castile soap twice daily.

Dr. M. A. Hoover,³ of Kearney, Neb., cuts short the poison and allays itching by the following :

℞ Acetate of lead	℥ ii.
Bromo-chloral	℥ i.
Water to make	℥ iv.

Shake well, and apply three or four times a day after washing the part with warm water and castile soap.

Dr. J. W. Little,³ of Washington, D.C., uses the following prescription :

℞ Bromo chloralum	℥ iv.
Vinum opii	℥ ij.
Aquæ	℥ vj.

The patient is ordered to bathe the parts freely with this.

Dr. R. L. Hinton,³ of Prescott, Ark., applies cloths wet in the cold infusion of sassa-

fras root, and gives internally *ad libitum* a warm tea of the same.

Dr. S. A. Russel,³ of Albany, advises a solution in ether or alcohol 3i to ℥i as a local application.

Dr. B. C. Parker,³ of Wilber, Neb., recommends the following formula :

℞ Bark of root of bitter-sweet . .	℥ i.
Inner bark of elder	
Lobelia (herb) aa	℥ i.
Lard (or vaseline)	℥ iv. ℥

SIG.—Simmer over slow fire four hours. Strain and apply freely.

Reynolds (A. S.) on the Subiodide of Bismuth in the Treatment of Ulcerations.—My usual proceeding in a case of chronic leg ulcer is as follows : I first thoroughly wash and cleanse the face of the ulcer, removing all slough, shreds of tissue, foreign matter, etc. I then disinfect it well, generally with solution of acetate of aluminium, *q. v.*, and then dry the surface of the ulcer and the surrounding parts. The granulations are then dusted with, or the ulcer packed with the subiodide of bismuth, alone or in combination, or with whatever powder may be indicated by the exigencies of the case. Calomel, salicylic acid, and bromide of potassium, I have found very useful. I then, while holding the limb vertically to drain it (the patient on his back), firmly strap it with adhesive plaster from below upward. The straps should be about one inch wide, and are applied as a spica, nearly surrounding the leg, and extending an inch or more above and below any œdematous or congested part. A firm bandage is then applied, including the foot, and the patient is allowed to go about as usual. This dressing, according to circumstances, may be allowed to remain from one to four days, and it may or may not need renewal.

When in proper condition—that is, when the ulcer has assumed a healthy aspect—the remainder of the treatment is simply to dust the granulations with the subiodide, protect with a Maltese cross or perforated square of plaster, cover with a thin layer of absorbent cotton, and again apply the bandage firmly.

These dressings should be renewed in from two to five days, when the limb may be gently rubbed to stimulate the circulation, or the patient may be allowed to stand or walk about for a few minutes without the bandage.

In removing the dressing I use no force

¹ *N. Y. Med. Record*, Sept. 18, 1886

² *Buff. Med. and Surg. Jour.*, Oct., 1886.

³ *N. Y. Med. Record*, Oct. 16, 1886.

to dislodge any of the powder which may have dried on the surface or about the edges ; but I generally douche the granulations with diluted alcohol or a solution of acetate of aluminium.¹ In some cases the ulcer is not washed at all from the beginning to the end of the treatment, any moisture or discharge being lightly sopped off with absorbent cotton.

If the surrounding skin shows any irritation from the plaster or from pressure, I dust the part with the subiodide and smear the surface with Goulard's cerate.

Strapping and bandaging, as used by me, are simply valuable adjuncts to secure physical rest to the parts ; on other parts of the body pressure is seldom required.

In gaping wounds with no loss of tissue, after drying and dusting with the subiodide, I use the extraneous ligature ; that is, the parts are approximated and held in position by lacing together the free edges or parallel strips of perforated or porous plaster. The edges of such wounds are generally covered with a strip of lint saturated with the compound tincture of benzoin. It is surprising how often by these means such wounds will heal by first intention.

In recent wounds and acute ulcerations, the dressings should be less frequent than in chronic cases.

If the subiodide of bismuth is used properly, the prognosis in every case may be "certain cure in half the time, and with far better results than can be obtained by any other treatment."

The prescription price of the subiodide of bismuth is from twenty to twenty-five cents per drachm, and as it is dusted on or used freely, it will require from a drachm to an ounce to effect a cure in an ordinary case of leg ulcer ; so it is comparatively inexpensive.

Subiodide of bismuth has been used in the treatment of gonorrhœa with the greatest success. (Bis. subiod., gr. xx. ; glycerin et. aq., āā ʒ iv., as an injection.) I would suggest that it would do better used dry, if the urethra could be rendered patulous ; or it may be used in the form of a soluble bougie.

It has been used successfully in rectal ulcerations (bis. subiod. ʒ j., unguent., ʒ j.), applied with an ointment syringe.

¹ Sol. acetate of aluminium : B. Alum. sulph., gr. 198 ; plumbi acet., gr. 446 ; aq. ʒ xvj. = sol. aluminii acet., gr. x. ad. ʒ j.—the proper strength for use.

It is highly recommended for internal use (gr. v.—x. ad. glycerin ʒ j., t. i. d. or p. r. n.) in gastric ulcer, intestinal irritations, and in typhoid fever ; for gastric ulcers or intestinal irritations it should precede food at least an hour.

The subiodide or oxyiodide of bismuth is produced, as an insoluble precipitate, in the reaction between KI and BiO₃NO₃ in the presence of HCl. It is a heavy, amorphous, impalpable powder, of a bright-red color, odorless and almost tasteless ; it is neutral in reaction, and perfectly insoluble in water, alcohol, or ether. Sp. gr. 6.73. It contains, as its formula indicates, BiOI : Bi 208, O 16, I 127 parts in every 351, or an equivalent of nearly one grain of iodine in every three grains of the subiodide.—*Med. News*, Oct. 9, 1886.

Selenetzky on Hot Baths in the Treatment of Renal Diseases.—The author (St. Petersburg Thesis, 1886) has experimented on seven patients with different renal affections, to test the comparative usefulness of hot packs, hot baths, and pilocarpine used hypodermically.

The loss of weight is greater after a hot bath and subsequent enveloping of the patient in blankets. It amounts to 801 grammes. After a hot pack it is 94 grammes, and after pilocarpine it is 514 grammes, 306 by perspiration, and 208 by salivation. The temperature and pulse remain elevated three hours after the bath, and the subjective state of the patient is much better. The slow pulse, low temperature, nausea, headache, and even collapse which follow pilocarpine are not seen.—*Bul. Gén. de Thérap.*, Sept. 30, 1886.

Granville (J. M.) on an Iodized Hydrogen Water for Use in the Uric-Acid Diathesis.—The need of a simple water which may be taken freely by persons suffering from uric-acid accumulations, with the effect of washing out the acid and its salts, has been long felt. For myself, I believe the value of "waters," generally, depends much more on their capacity for taking up and washing out excrementitious matter while passing through the blood and the extra-vascular fluids of the organism, than upon the specific effect of any thing they introduce into the system. I have now to suggest that an excellent and potable water may be made by very slightly iodizing distilled water, or dissolving in it a minute quantity of hydriodic acid—not enough of either to render

the taste disagreeable,—and then passing well-washed hydrogen gas through it. Water will only dissolve about two per cent., by measure, of hydrogen gas, but this is by no means an inconsiderable proportion as compared with that existing in many of the natural waters of high repute; and beyond question it greatly increases the capacity of the water for holding solids in solution. I venture to think the profession will find the use of a simple non-effervescent water of this description of great value, and it can readily be prepared by any competent chemist. It is the measure of the hydrogen, and not the weight, which must be regarded; 100 cubic inches only weigh 2.25 grains.—*Lancet*, Oct. 23, 1886.

Raisin on the Treatment of Ataxic Pains with a Spray of Ether or the Chloride of Methyl.—Sprays of ether or methyl procure a decided momentary relief of ataxic pains. A continuance of the applications produces an improvement in the general condition of the patient and renders the pains less frequent and severe. The application is made to the *locus dolenti*, or to the spine overlying the presumably diseased segment of the cord. When we consider the drawbacks to the use of morphine or chloral any simpler and safe remedy is worthy of trial.—*Bul. Gén. de Thérap.*, Oct. 15, 1886.

Ricketts (B. M.) on the Thermo-Cautery in the Treatment of Herpes.—The skin was barely seared with the blade at a white heat, done by a semicircular movement of the hand in which the handle of the cautery was firmly held.

The application was limited to the surface where the eruption had appeared and the distribution of the affected nerve.

This, however, was not done in the beginning of the first case, the patient having been placed upon the Asiatic pill, composed of arsenious acid gr. j.-xx., and piper nigrum gr. iv.

This treatment was continued for one week without any appreciable benefit other than that which would naturally have followed.

The pain continued, with restless sleep, but was within a few days controlled by the daily application of the thermo-cautery.

In the second case its use two or three times daily was followed by the most satisfactory results, the burning and neuralgic pain was relieved, sleep and appetite were restored, and the course of the vesicles was

shortened in being dried without lacerating the cuticle.

When the pain is severe it may be necessary to apply the cautery every three or four hours.

Lanolin or vaseline is perhaps the best preparation for keeping the parts over which the cautery has been passed softened.

Starch should be used freely with a broad flannel bandage. It has not been very long since this plan of treating herpes was inaugurated—by whom I am unable to say.

It may be that the destruction of the vesicles relieves the pain by removing the pressure which is produced by the exudation of serum, or it may be entirely due to the local anæsthesia of the peripheral nerves produced by the cautery, or admitting that the lesion is in or about the spinal ganglia, why not attribute our good results in this and other cases to some exciting influence upon them?—*Cin. Lancet-Clin.*, Oct. 23, 1883.

White (J. B.) on Antipyrin as an Analgesic in Headache.—During the past two years I have abundantly tested the therapeutic value of the drug known as antipyrin in various forms of headache. I have been singularly impressed with the promptness of relief which often followed the administration of even a single dose of fifteen grains of the antipyrin. The grateful relief from headache usually ensues within half an hour after the drug is taken. A sense of drowsiness ordinarily supervenes, followed by a brief but sufficient slumber, and the patient awakens quite relieved of this distressing symptom. I have never yet seen the sleep-disposing properties of antipyrin alluded to by any other observer, although this effect seldom fails to ensue when a full dose such as I have named has been taken.—*N. Y. Med. Record*, Sept. 11, 1886.

Roussel (J.) on the Treatment of Pulmonary Tuberculosis by the Subcutaneous Injection of Eucalyptol.—The author has given subcutaneously gr. v. to xii. of eucalyptol a day. When the drug is properly distilled, decanted and filtered, its injection causes no pain. Three or four minutes after the injection the patient can taste and smell the drug.

After the sixth or seventh injection the sputum is apt to become paler or white, fluid, and more easily raised in the morning.

Coughing spells cease to be tearing and painful. They lose the bad taste in the mouth, have less sore throat, swallow more freely, eat with a relish, breathe and sleep better. Two to three and one half months' treatment generally causes an entire disappearance of the tubercle bacilli from the sputum.—*Gaz. des Hôp.*, Oct. 9, 1886.

Benewolsky on Hot Baths in Pneumonia.—The author, in the *Yeg. Klin. Gaz.*, Nos. 8 and 10, recommends immersion to the waist only in a bath at 106° to 111°, lasting one half an hour.

This treatment strengthens the patient, lowers the temperature, and diminishes the inflammatory process sensibly. It seems never to have done harm. The author regards its action as that of a powerful revulsant, but thinks it useless when the inflammatory process becomes destructive.—*Bul. Gén. de Thérap.*, Sept. 30, 1886.

Barthel (E.) and Moritz (E.) on the Treatment of Croupous Pneumonia by Inunction of Mercurial Ointment.—During the years 1880–1884 in the Obuchow hospital 640 cases of pneumonia were treated in various ways, with a mortality of 31 %; and of 101 cases simply "greased," 28 % died. From recent reports, 32 cases treated by mercurial inunctions show a mortality of 6.2 %!

The inunction was practised morning and evening, and in bad cases at noon also, one drachm of the ointment being rubbed into the extremities or abdomen. The inunction was continued one half a day after the crisis. The total amount of the salve used varied from 2 to 13 drachms.—*St. Pet. Med. Woch.*, 1886, No. 1; in *Cent. für klin. Med.*, 1886, No. 41.

Mosler on the Subcutaneous Injection of the Salicylate of Cocaine in Cases of Asthma.—In three cases of asthma, a subcutaneous injection of gr. $\frac{1}{2}$ of the salicylate of cocaine cut short the attacks and rendered them much less frequent, while in milder cases half this dose produced very great improvement. In only one case were there any disagreeable effects (vertigo and darkness before the eyes) from the drug, and this only after the first injection.—*Deutsche med. Woch.*, 1886, No. 11; *Cent. für klin. Med.*, 1886, No. 40.

Woitekewitsch on Cold Air in the Treatment of Fevers.—The author (Thesis of St. Petersburg, 1886) has essayed this treatment in eleven cases of

typhoid, three cases of pneumonia, and one case of pleurisy. Total number of séances seventy-one; each of which lasted from 15 to 30 minutes. He makes use of a special apparatus for refrigerating the air.

The results of inspiration of cold air are: slight and transitory lowering of temperature, marked diminution in the frequency of pulse and respiration, subjective improvement of the patient, and better sleep. The manifestations of bronchial catarrh are improved in a very pronounced way in these febrile patients. No untoward results seem to follow treatment.—*Bul. Gén. de Thérap.*, Sept. 30, 1886.

Jackson (A. W.) on Woollen Clothing for Old People.¹—In a recent number of the *Therapeutic Gazette*² there was published an article written in regard to the best means of prolonging life. The writer, among other things, referred to the difficulty experienced by old people in keeping themselves warm, and very properly laid special stress upon the matter of clothing. The writer referred also to the grave necessity which exists in the cases of old people, for keeping warm the abdominal organs, and in so doing, of course, maintaining a proper and equable degree of warmth throughout the entire system. He then, after pointing out this necessity, tells his readers that the best means known to him for the purposes mentioned are the chamois-skin jacket and the flannel abdominal bandage.

Now, as the chamois-skin jacket is rather expensive, and the home-made flannel bandage uncomfortable, I would suggest that elderly people who are anxious to find an article of underwear which is warm as well as light, try woollen fabrics of some kind. In the first place, let the article be of *pure wool*, stockinet. In the second place, let the undervest and drawers be *double* in all parts which cover the abdomen. If an abdominal bandage must be worn let that also be of woollen, "stockinet," which is light and "gives" easily to the inequalities of the body. Woollen fabrics, such as I have here mentioned, are by far the best for all purposes of wear; because, as we know, it is a natural provision for human bodily covering, and is *permeable to moisture* and *non-conductile* to heat and electricity.

Any one, dispassionately considering the

¹ See MEDICAL ANALECTIC, June, 1886, p. 248.

² May 15, 1886.

subject, must be convinced that a fabric which gives free passage to the exhalations from the skin, and thus avoids throwing them back upon the system, to poison by the absorption of effete matter, *must* be the proper article to use for underwear or clothing of all kinds. The chamois-skin is all very well when no better article may be had, but, even if perforated, fails in allowing the passage of all noxious emanations from the body; and, by its price, is beyond the reach of all but the more wealthy. I have lately read and investigated the theories of the German professor, Dr. Gustav Jaeger, of Stuttgart, Germany, and can most cordially endorse him in all that he states as regards woollen fabrics for clothing. In his little book called "Health Culture," he goes quite thoroughly into the subject, and seems to have made the most of his opportunities for investigation and experiment. He recommends the double thickness down the front of the undergarments, and also the woollen stockinet bandage for abdominal support and protection. He believes also that the knees and joints should be protected by knee-warmers, and that a "webbing," fastened to the inside of the sleeves and bottoms of the trousers, and fitting closely around the wrists and ankles, should be worn by people susceptible to cold.

A sleeveless jacket, something of the style of the Cardigan jacket, would prove of great comfort and benefit to persons who need an extra protecting garment.

In fact, my ideas in regard to the matter may be summed up as follows: That the underclothing be of woollen fabric, pure and simple, and that it should be so cut and made as to fit and conform to the body anatomically. It should be of *undyed* wool. It should promote a thoroughly healthful action, so as to dispose freely of the noxious exudations thrown off by the skin, and maintain the most equable temperature, with the least possible weight of material.

Of course old people who have worn a different kind of clothing (cotton, merino, or silk) all their lives must not expect that a change to woollen fabrics is to do wonders in a moment. Wool requires time in which to work its full benefits, and persons who may follow my advice and adopt it for their use should not be at all misled or discouraged if the skin, by its efforts to expel the effete matter secreted during a long period, should become irritated and cause

some little discomfort. This will soon subside, and a sensation of such positive comfort, and such a previously unknown sense of health and vigor will follow, as will more than repay for any little discomfort suffered in the past.

TOXICOLOGY

Charrin and Roger (G. H.) on the Intestinal Lesions Caused by Corrosive Sublimate.—The experimenters employed aqueous solutions, 1-1000 or 1-4000, which they administered hypodermically or intravenously. The symptoms noticed during life were emaciation, albuminuria, very rarely diarrhoea, and never intestinal hemorrhage. The doses given were small and never caused the death of the animals, which were destroyed at various stages of the poisoning in order to study the intestinal lesions. These lesions are always localized in the ascending colon and cæcum. Sometimes the ileo-cæcal valve is attacked as well as the adjacent part of the ileum.

In the early stages there are seen punctate hemorrhages which involve also the peritoneum, mesentery, the surface of the kidneys, and even the lungs.

Later ecchymoses appear, which appear like bloody stripes running parallel to the long axis of the gut, having a breadth of a millimetre and varying in length from several millimetres to three or four centimetres. Later still large, diffuse ecchymoses take place, and the overlying mucous membrane becomes necrosed. This slough soon separates, leaving a shallow ulcer with sharp-cut edges. The corresponding peritoneal surface is inflamed, but the experimenters have never seen perforation ensue.—*L'Union Méd.*, Aug. 29, 1886.

Treves (F.) on the Iodoform Rash.—The patient was a girl aged thirteen, who was admitted into the London hospital in April with a simple ununited fracture of the left ulna. On May 8th the fracture was cut down upon. The operation was performed with Listerian precautions, and the wound dressed with carbolic gauze. This dressing was discontinued on May 10th, and wood-wool with iodoform substituted.

On June 5th a remarkable exanthem appeared. It was first limited to the left forearm, arm, and shoulder. During the day the patient had complained of intense

headache and giddiness, and of not feeling well. In the evening all these symptoms had disappeared. The forearm now was very much less swollen and had ceased to be tender. I saw the child on the morning of June 6th. The exanthem now covered the left arm and shoulder, the greater part of the face, nearly the whole of the front of the chest, and some part of both sides of the neck. The right upper limb, the legs, the abdomen, and the back were quite free. The eruption appeared in the form of patches. Each patch consisted of a number of closely packed papules. These papules were all of less size than a pin's head, and were set upon a pink erythematous base. The little papules could be felt as well as seen, and they were paler than the surrounding skin. The erythematous patches varied in size from a sixpenny to a half-crown piece. They were irregularly round, and ran the one into the other. The margin of each patch was clearly defined. The child presented no constitutional symptoms. She appeared to be in perfect health, her appetite was excellent, and she begged to be allowed to get up. At no time was there any evidence of catarrh of the nasal or other mucous membrane. There was no watering of the eyes. The tongue was clean, the throat was of normal aspect, and the bowels continued to act regularly. By the evening of June 6th the eruption was fading, and by June 7th it was gone, and was represented only by a faint yellowish tint on the skin. On June 8th not a trace of the exanthem remained.

Beyond discontinuing the iodoform no treatment was adopted.

It will be noticed in this case that the eruption was twofold: (1) A vesicular eruption that was quite local and practically limited to the district dusted with the powder; (2) an exanthem that was of wide distribution, and that could not have depended upon local causes. The amount of iodoform used was comparatively small, and no symptoms appeared until the drug had been applied for three weeks.

Zeissl (*Allg. Wiener med. Zeitung*, 1881, p. 455) recorded the following cases in 1881. (I) A boy aged three was suffering from an ulcer of the leg; after this had been dressed with iodoform for fourteen days, the temperature rose to 105° , and the child became suddenly ill. The patient was very drowsy; there was vomiting and

some albuminuria. At the same time an erythematous eruption appeared on the flexor aspect of the upper part of each arm, and the inner side of each thigh. The patches were of distinct outline and of a bright red color. On discontinuing the iodoform, the temperature sank and the rash faded. (II) A sinus leading down to diseased bone was dressed with iodoform. After the powder had been applied for seven days, an exanthem not unlike urticaria appeared. It consisted of sharply circumscribed raised patches of a bright red color; some of them had a diameter of two centimetres. The rash was found mostly on the flexor sides of the limbs.

Neisser (*Deutsch. med. Woch.*, No. 30, 1884) describes a dermatitis due to the direct local action of iodoform. He has seen seven examples of it. There is an erythema and a crop of small vesicles. The latter form in a few hours; some soon become covered with a slight scab, others become pustular. The eruption may be produced by one application, and does not extend any distance beyond the area to which the powder is applied.

Goodell (*Boston Med. and Surg. Jour.*, 1885, p. 352) describes a precisely similar eruption of vesicles with subcutaneous oedema upon the face of a woman aged forty. Iodoform had been applied to some ulcers of the face. The eruption did not appear until the ninth day of the application. It was attended by malaise, fever, irregular pulse, and delirium.

Fabre (*Gaz. med. de Paris*, 1884, vol. i., p. 494) records a case that is practically of identical character in the person of a man aged twenty-seven, the subject of syphilitic ulcers.—*Practitioner*, Oct., 1886.

Laache on Fatal Result of Peroxide of Hydrogen Injections.—The patient was a man twenty-eight years of age, who had had a portion of the ninth and tenth ribs resected for empyema. The operation had been successful and the wound progressed favorably, and two months after the operation there remained only a fistula about an inch and a half long. In order to hasten the healing of this, hypodermic injections of a three-per-cent. solution of peroxide of hydrogen were resorted to, as this method of treatment had given very satisfactory results in two somewhat similar cases in which it had been tried. Six injections, each containing 0.8 cubic centimetre of the solution, were administered

without any particular effect. At the seventh, however, the patient complained of pain and faintness, the pulse failed, the respiration became oppressed, clonic contractions occurred in the right arm, the head turned to the left, the jaws became tightly set, the face became cyanotic, and the patient died in ten minutes. The necropsy, which was not made till forty-eight hours after death, revealed nothing very striking.—*Lancet*, Oct. 9, 1886.

Rouillard (A.) on Effects of Tobacco upon the Intelligence and Particularly upon the Memory.—The author claims that an impairment of memory is the most constant mental effect of prolonged use of tobacco. He closes his article with these words: "This faculty (memory) has no special localization, but is extended throughout the encephalon. Intellectual manifestations are in direct relation with the cerebral circulation and resent the slightest disturbance, whether hyperæmic or ischæmic. The effect of tobacco upon the heart and blood-vessels is well known. When, then, from the use of tobacco, the muscular substance of the vessels become torpid, the blood, lacking its natural propulsion, circulates slowly and irregularly. This strikes at the root of the functional energy of the brain and lessens it little by little, the different faculties in different proportion, but the memory in particular."—*L'Encephale*, May and June, 1886.

Pearce (A.) on Poisoning by an Aniline Pencil.—H. C., aged twenty-three, a discharged soldier, sent for me at 3 P.M. on October 5, 1886. He was then in a state of partial collapse, sweating, and almost pulseless. He had vomited, and suffered severely from diarrhœa, not in any way characteristic. He had been subject to dysentery abroad, and had been drinking on October 2d. I gave him a stimulant stomachic, with two grains of gray-powder and five of compound ipecacuanha powder, every four hours, with other directions. On seeing him the next morning, I found that he had revived, and had been sick after every powder, vomiting some blue liquid, unfortunately thrown away. He now showed me an indelible aniline pencil, which he had used on October 3d to push out a fang of a tooth, left after partial extraction on October 1st. On the same day he was seized with vomiting and purging, and just before I saw him he was

said to have had an epileptiform fit. He recovered from all symptoms in a few days, only some weakness remaining.—*Br. Med. Jour.*, Oct. 23, 1886.

MEDICINE.

Semmola (M.) on Paralytic Ataxia of the Heart of Bulbar Origin.—When such powerful exciting causes as fright and venereal excesses, having a special predilection for the nervous centres, work upon the organism of men from forty to sixty years of age, there are often developed a series of functional troubles of the stomach and heart.

Rebellious dyspepsias, often followed by gastric catarrh, are first noticed. Cardiac troubles follow slowly, at first limited to systolic weakness and a rapid pulse.

This *prodromic period* lasts a long time (sometimes from two to three years), with periods of improvement when the exciting cause is checked.

If the exciting cause continues, attacks of palpitation, asystole, and respiratory disturbances commence. Next a mottled appearance of the skin of the hands, forearms, and legs develops, which shows a neuro-paralytic stasis of the parts. Soon marked dyspnœa on slight exertion is complained of, and auscultation reveals the existence of crepitant râles at the base of both lungs. Attacks of suffocation, waking the patient from sleep, force the patient to sit up in bed. These attacks seem to be caused by anæmia of the respiratory centres, which is more marked than in normal sleep.

Edema of the feet inaugurates the last stage of the disease. Asystole becomes permanent, and other signs of organic disease of the heart, such as different dropsies, venous stagnations, and permanent dyspnœa, appear. Organic murmurs are not common, but systolic bruits, referable to the mitral and tricuspid orifices, point to loss of tone of the tensor muscles of those valves.—*La France Méd.*, Sept., 1886.

Evans (T.) on a Large Calculus Removed from the Bowels by Inflation.—On Friday, December 4, 1885, Mrs. J. was taken with a severe attack of diarrhœa; after a few hours it suddenly ceased. Then followed pain in the bowels and vomiting.

The symptoms becoming aggravated by

noon on the fourth day, at 2 P.M. I inflated her bowels with air, which at first passed up only a short distance; and then passed out by the rectum. Continuing the operation for twenty minutes, it began to move higher up; and in half an hour, concluding she could not bear any more, it was discontinued. About two hours from this time an enema brought away a small amount of fecal matter.

Fears being expressed by the patient of a displaced womb, an examination revealed a slight displacement forward, which being rectified she expressed herself as much relieved. Having requested some nourishment, soup was taken and retained; and no more vomiting followed. Soon after a moving in the bowels was felt by the patient; and about 5 P.M., while over the bed-pan, something passed from the bowels, striking the bottom of the vessel with great force and with a loud report. This was immediately followed by a very copious discharge from the bowels, over which the patient had no control. Over a gallon of fecal matter was discharged, and the condition of the patient was immediately changed; all symptoms of pain and vomiting came to an end. On removing the evacuations from the vessel a large calculus was found, measuring two and a half inches in length and four and a half inches in circumference, and weighing seven hundred and twenty grains. It was evident that this calculus had been the cause of the impaction of the bowels, and that it had been dislodged by the inflation.

The calculus is covered with a coating of lime, has a smooth, shining appearance like polished marble, is grayish-white, covered with black, brown, and yellow spots. It has the appearance as if there might have been adhesions on its surface. It was sawn through its centre six weeks after its discharge, since which time it has hardened considerably and assumed a more polished appearance. Near the centre is a dark spot one third of an inch in diameter, which was quite soft—of the consistence of beeswax. Surrounding this are dark and light rings, showing layers of cholesterin, which increase in hardness toward the periphery; and finally an external coating of lime, varying from two lines to half an inch at the small end. Its fractured surface glistens like resin, and the sawdust dissolves in sulphuric ether, giving a straw-colored solution.

The most probable view is, that the calculus passed through the walls of the gall-bladder by ulceration into the duodenum; and was in some way the cause of the discharge of pus last summer. It then found its way into the ileum, where it lodged till the time of impaction and the accumulation of fecal matter behind it, which was dislodged by the inflation of the bowels.

At this time, nine months since the discharge of the calculus, Mrs. J. is enjoying good health.—*Med. News*, Oct. 9, 1886.

Cheadle (W. B.) on the Treatment of Intussusception by Inflation and Massage.—The author reports three similar cases, to illustrate which a *résumé* of one will suffice. The patient was a girl of six. On the left side there was a tumor, seemingly about two inches thick and some three inches and a half long, lying transversely from just above the umbilicus to the left hypochondrium, and the recurring slightly downwards. It was freely movable and firm; no impression could be made upon it. Intussusception was diagnosed, and the child was forthwith placed fully under the influence of chloroform. The above position of the tumor was then verified. Nothing could be felt in the rectum, but a little blood escaped. The bowel was inflated, as in the previous cases, with a Higginson's syringe, and the abdomen kneaded by the hand. The tumor could be felt receding as inflation proceeded, until the abdomen was fully distended. When the air was allowed to escape, a slight thickening could still be felt in the region of the tumor. Dr. Swift accordingly again inflated the bowel, and this time the whole course of the large intestine could be clearly seen. On the air escaping once more, no tumor, thickening, or resistance could be found anywhere. A drop of laudanum was administered after the child had regained consciousness, but as she continued to scream, chloroform was again administered, lest excitement should cause return of the intussusception; four hours' sleep followed. The next day the child was well, no thickening or tumor could be detected, and no further trouble followed.—*Lancet*, Oct. 23, 1886.

Bryce (C. A.)—The Baby as a Water-Drinker.—In my earlier years of practice I devoted much attention to the study and treatment of infantile disorders, and have never regretted any labor or pains spent in the direction of ameliorating the

ills of this large class of little sufferers. It would doubtless surprise many of my readers if I were to state that many infants annually die for want of water—pure drinking water!—and still the assertion is true. Let me invite the attention of mothers and nurses to the fact that three-fourths of a child's nourishment for the first twelve months of its existence is, or should be, water. In fevers and inflammations it is cruel to withhold this health-giving beverage, upon the principle that the disease will be made worse by the use of water. There is no disease in which water should be withheld. I have seen a little infant with cholera-infantum, with dry, husky skin, parched tongue, rolling and whining feebly, and almost in a state of collapse from frequent watery discharges, go into a sweet sleep, have a soft, velvety skin, a cessation of diarrhoea, and a speedy recovery ensue from the free use of *spoonful doses of iced water*, when all other agents had failed. Do not imagine that the watery discharges are due to too much water in the child's system. This is not the cause of your cholera-infantum. But, unless you supply this waste of water, your little patient will die *from the want of it*. My friend, Dr. H. W. Davis tells me of his treatment of a few cases of cholera on common-sense principles by determining not to let them die for want of water. He supplied them with iced water by the bucketful, and the result was the cure of several hopeless cases. What is true of the adult is true of the child. Water, plentifully used, will never kill—will always afford comfort, and will many times save life.—*South. Clinic*, Aug., 1886.

Martin (S.) on the Treatment of Thread-Worms in Children.—In many cases I have found that rhubarb in small doses brings away large numbers of worms, and at the same time regulates the bowels; so that the use of the injections may in most cases be dispensed with. The formula which I have found most useful is as follows, varying slightly with the age of the child:

R	Tincturæ rhei	℥ iij.
	Magnesii carbonatis	gr. iij.
	Tincturæ zingiberis	℥ j.
	Aquam	ad 3 j.

This is to be taken twice or three times daily according to the effect on the bowels. Whether the rhubarb acts as a vermicide, or simply by "moving the worms on,"

I am unable to say.—*Practitioner*, Oct., 1886.

Semmola on New Contributions to the Pathology and Treatment of Bright's Disease.—The author summarizes his treatment as follows:

An exclusive milk diet is absolutely essential. Milk acts as a complete aliment, and also as a diuretic. It is only occasionally that he allows a little meat or the yolk of eggs. Ordinary nitrogenous diet is proscribed.

Methodical and repeated dry frictions, massage, warm douches, and frequent hot-air baths, are indicated. Cold bathing and severe exercise are forbidden.

Residence in a dry and constant climate is best, while in winter, or in a variable climate, the patient should go out little, and should exercise rather in an apartment with a constant temperature of from 64° to 68°. Iodide and the chloride of sodium should be administered in increasing doses up to the point of tolerance. When the albuminuria and anasarca have ceased, he gives the phosphate of soda or the hypophosphite of soda and lime in doses of from gr. xlv. to 3 i. in twenty-four hours.

Methodical inhalations of oxygen should be employed.

Any kind of astringent is useless and harmful.—*L'Union Méd.*, Sept. 9, 1886.

Stearns (I. H.) on Spermatorrhœa.

—A person with spermatorrhœa reporting to a true physician who knows this branch of his business, would be told that there was nothing alarming in the symptoms, and an explanation would be entered into. He should be told that arriving at the proper age, the semen is manufactured in the little sacs between the bladder and rectum. That if it is not demanded in the legitimate way it sometimes overflows, and this is liable to happen toward morning as the bladder and rectum get filled. He should be told to void his urine the last thing before retiring, and sometimes it is better to have the bowels move at night as a habit, rather than in the morning. He should be enjoined to keep the mind and body regularly employed, thinking of lascivious things as little as possible; and as the mind here requires treatment, and the idea is strong that some medicine is required, it should be given, with directions as to hygiene. Some of the quieting remedies and a tonic will give the patient the feeling that

something is being done for him. He should be distinctly told that these losses are an indication of manhood that ought not to be destroyed, and that if he has an emission not oftener than once in a week or two, it should occasion no regrets except that it was under no more favorable circumstances. Advise the young man to get in love with a good virtuous girl, and in due time marry her and be happy. *Don't forget to charge a good fee.*—*Medical World*, Oct., 1886.

Tripier (R.) on the Diagnosis of Ascites by Means of the Vaginal Touch.—In an entirely accidental way the author found that even in the earliest stages of peritoneal effusion, when the amount of fluid was still very small, it could be readily detected by vaginal touch. The uterus yields to the finger because of its abnormal mobility. It can be moved in all directions as if the uterus were fixed to the vaginal roof by means of a joint, permitting movements in all directions.

This extreme mobility on the part of the uterus can only be attributed to a loss of weight of the organ; and the existence of a certain quantity of liquid in the pelvic cavity explains that phenomenon.

By this means slight peritoneal effusions can be detected which give rise to no other signs.—*Lyon Méd.*, Sept. 19, 1886.

Sutton (J. B.) on Menstruation in Monkeys.—Macaque monkeys and baboons suffer a periodical loss of blood from the uterus. Unlike the human female, there is no shedding of the epithelial lining of the mucous membrane of the uterus and utricular glands. The amount of blood which escapes is very small in quantity. In examining badly preserved specimens, all the remarkable appearances described as occurring in the uterus of the human female could be produced.

This paper would have been more complete if it had been possible to state the connection between ovulation and the loss of blood. So far, I have not been able to satisfy myself that the two are coincident. In some instances, the ovaries contained very many ripe ova and mature follicles; at other times, although the monkey had manifested all the objective phenomena mentioned as occurring during the flux of blood, yet no enlarged follicles could be detected in either ovary. Before advancing any definite opinion on this part of the subject, I deem it prudent to collect more

material and obtain a few more facts.—*Med. Press and Circular*, Sept. 29, 1886.

Hedges (E. W.) on Resorcine in the Treatment of Whooping-Cough.

—The remedy used was resorcine in a two per-cent. solution, as recommended by Dr. Moncorvo, of Brazil, and the method of applying it was by a hand-atomizer (Perkins), inhaling the spray for four or five minutes every three hours. In the case of adults, where the treatment was faithfully carried out, the results were uniformly successful, a cure being effected inside of nine days in every instance. With young children (two years and under) it was found impossible to use the spray, and even with older ones, where the treatment was intrusted to mothers or nurses, the cough was often modified rather than checked; but in every case, young or old, where the spray was properly applied a cure resulted.—*Med. Record*, Aug. 21, 1886.

Savage (G. H.) on the Use of Sedatives in Insanity.—I may say that as a result of my past experience, I treat patients in Bethlem almost without the use of the more common sedatives; that bromides and morphine, chloral and opium, are very rarely used indeed. Every new sedative has its trial, and so far I have not found one which can in any way be looked upon as a real boon in the treatment either of mental depression or excitement.

In studying the treatment of mental disorders by means of sedatives, I would at the outset say that a very definite idea must be formed as to what you have to treat and what you have to do. I should say that there are first of all two very opposite conditions giving rise to mental disturbances: in one the brain is the chief cause of the disorder, and in many instances the evil is organic decay of this organ. Whether a patient of sixty or seventy be maniacal or melancholic, great care must be taken to support him, and not lower his powers of life. And again in premature decay, such as is seen in general paralysis of the insane, though the patient be wild and violent, it must never be forgotten that you have to deal with a tottering edifice, and that severe measures may be rapidly destructive. The early and excited general paralytic is very often easily affected by alcohol, so that I have known a glass of wine make such a one appear to be drunk, and in the same way a slight opiate or a small dose of hyoscyamine may produce

serious effects. In true brain decay it is better to avoid any of the stronger sedatives, and rather to use small and repeated doses of the milder ones.—*Practitioner*, Sept., 1886.

Putnam (J. J.) on Syphilis of the Nervous System.—I must confess myself decidedly of the party of those who believe that large doses of iodide of potash and mercury are often necessary in the treatment of the late nervous lesions of syphilis, though I must confess that the reasons for my opinion are rather inferential than positive.

Many patients do perfectly well on moderate doses, it is true, and for them possibly enough is as good as a feast. On the other hand, I am convinced that from time to time I have seen patients improve on doses of a drachm or 100 grains of iodide of potash three or four times daily, who had not done as well on smaller doses; and I have seen patients at the hospital that I did not care to trust with large doses, fail to do as well as I thought they ought.

Again, what I think should count of practical importance, I have never seen large doses, properly watched, do any irreparable harm.

In the case of one patient with syphilitic myelitis whom I was seeing daily, and whose prospects of leading a life of invalidism would have made him willing to incur almost any risk, I gave by gradual increase up to nearly $\frac{3}{4}$ j. of iodide daily, and then for the first time signs of poisoning on the part of the nervous system appeared, which were at first rather alarming, but quickly subsided. I believe that even larger doses than this have occasionally been used. The same patient has been taking now for several years $\frac{3}{4}$ ss., or more, daily, for at least half the time, with constant improvement in his nutrition.—*Bost. Med. and Sur. Jour.*, Oct. 7 and 14, 1886.

Althaus (J.) on Tetany and Tetanilla.—Of tetany Dr. Althaus had seen ten cases—four in males and six in females. The clinical phenomena consist of a succession of attacks of tonic spasm, or rigidity of certain groups of muscle, mostly symmetrical, which follow one another at somewhat regular intervals, and are not accompanied with loss of consciousness, but with undue excitability of the motor nerves and muscles.

The chief causes are certain kinds of irritation acting upon an otherwise predis-

posed and enfeebled nervous system, such as persistent diarrhœa, half-starved condition of the children of the poor, obstinate constipation, intestinal entozoa, dentition (evidence not strong), irritation from diseases of the sexual organs in women, small-pox, typhoid fever, cholera, influence of wet and cold, etc.

It has been said to occur epidemically; probably these cases were either hysteria or cerebro-spinal meningitis. It has occurred after four cases of thyroidectomy, and this fact suggests a possible causal relation between these two facts worthy of consideration.

It has occurred most frequently between the ages of one and five years and ten and fifteen years, and females are rather more liable to it than are males.

A constitutional neurotic condition must be present in order that such causes as diarrhœa, cold, etc., may lead to an outbreak of tetany.

The evolution of the symptoms may be rapid, or more gradual. The premonitory symptoms are malaise, headache, dizziness, feeling of stiffness, and shooting pains in the limbs, slight rigidity or few twitches, and then the symptoms become gradually aggravated until the disease is fully developed. Both hands assume a peculiar position, not always the same; but in most instances the muscles supplied by the ulnar nerve suffer, bringing the hand into the conical shape adopted by the accoucheur. The position of the hand first described as belonging to this disease is not absolutely pathognomonic, but where spasm of the muscles supplied by the ulnar nerve is entirely wanting, the case is probably not one of tetany. Mostly there is symmetrical affection of both sides of the body. In a large number of cases the muscles of the extremities only are affected. The muscles of the face, neck, and trunk may become involved. A sudden impression of cold or heat may arrest the spasm, but it reappears as soon as these agents are withdrawn. The spasm can be produced by pressure upon the nerves and the arteries, quicker by pressure upon the vessel than by pressure upon the nerve. Faradic and galvanic excitability are much increased. Mechanical excitability of muscles and nerves is increased, but this is not always present, and it is sometimes present in other affections. There is loss of muscular power. Pain is sometimes experienced during an

attack, and there is, generally, tenderness on percussion during an attack, particularly at the seventh cervical vertebra. Paræsthesia is occasionally present, but as frequently absent. The temperature may rise to 101° F., or more, in severe cases. In the majority of cases the secretions do not undergo any special change.

The duration of an attack is from a few minutes to half an hour; the attacks may occur at intervals, or they may be almost continuously.

The entire duration of the disease is rarely less than one month, and more commonly two or three months. Morbid anatomy has not furnished the precise nature of the change present. Dr. Althaus believes that tetany is a functional disease, produced by undue excitability of the giant cells in the gray matter of the anterior horn of the spinal cord. Why these cells should be particularly affected is inexplicable.

Tetanilla.—This affection occurs in neurotic subjects, frequently in those addicted to masturbation; occurs between the ages of fourteen and fifty-four years, and, so far, all his patients had been males, and, according to his experience, no particular exciting cause could be found.

It is a *clonic* convulsion, generally symmetrical, that ceases during sleep; does not impair motor power or co-ordination, and electro-excitability is normal, but reflex excitability is increased.

The *treatment of tetany* consists in building up the constitution of the patient, and the use of hydrate of chloral as a direct sedative. The iodide or the bromide of potassium in some cases is useful. For cutting short the paroxysm, which may threaten life by spasm of the respiratory muscles, the best remedy is the subcutaneous injection of pilocarpin.

The *treatment of tetanilla* is chiefly mental; allaying the fears of the patient with reference to the presence of progressive muscular atrophy and other diseases with which it has been confounded.—*N. Y. Med. Record*, Oct. 25, 1886.

Dreschfeld (J.) on Diabetic Coma.—However much physicians may differ as to the pathology of diabetic coma, I think it is admitted generally that the appearance of the acetone breath and the presence of perchloride of iron reaction always indicate that we have a severe case of diabetes to deal with, and that in these cases a slight cause may bring on a fatal coma. Such

patients should be forbidden active exercise; they should avoid mental worry and excitement. As obstinate constipation has occasionally been assigned as an exciting cause, the condition of the bowels should be attended to, but only gentle laxatives be given. If the symptoms come on soon after a course of an exclusive nitrogenous diet, a mixed diet should be at once recommended. We may in this way succeed in averting the symptoms of coma, for when once these are present our therapeutics are powerless. Intravenous injection of phosphate of soda and chloride of sodium, recommended by Fagge, only delayed the fatal event for a few hours; not more success was obtained by transfusion. Stadelmann believing, as we saw, that the symptoms of diabetic coma depended on the presence of increased acid in the blood, gave in one case large doses of bicarbonate of soda; there was some slight temporary improvement, but the fatal result followed a few hours later. The different antiseptics have been tried, but with no better result; in fact, several cases of diabetes died from coma during a course of treatment with carbolic acid. The inhalation of oxygen, and the administration of stimulants, such as ether and camphor, gave no better result; the latter are, however, indicated in diabetic collapse.—*Br. Med. Four.*, Aug. 21, 1886.

SURGERY.

Peyrot on Transplantation of a Tendon from a Dog to a Man with Partial Restoration of Function.—

In an old case of section of the flexor tendons of the medius the author decided, as a last resort, to transplant a tendon from a dog. The operation was successful, in that no sloughing took place, and that the transplanted bit united at both ends to the severed tendon. Functional restoration was imperfect, for while the finger regained a certain amount of flexion, it could not be brought into contact with the palm.

Gluck,¹ Assaky,² and Fargin³ have demonstrated that the operation results successfully in animals. It has so far never succeeded in man.—*Bull. et Mém. de la Soc. de Chir. de Paris*, June, 1886.

¹ *Bull. de la Soc. de Chir.*, May 20 and 27, 1885.

² *Compt. rend. de la Soc. de Biol.*, Nov. 6, 1885.

³ *Thèse de Paris*, 1885, No. 25.

Souther (W. P.) on Reunion of Severed Digits.—A young man in a neighboring factory had a finger cut off by a large paper-cutter. He brought the exsanguinated piece to me wrapped up in his handkerchief. It was three fourths of an inch long, and included the nail and perhaps one half inch of the last phalanx. With little expectation of success, I adjusted the amputated piece to the stump, and now, after ten days, it is firmly adherent, the renewed circulation showing plainly at the finger tip.—*Bost. Med. and Surg. Jour.*, Oct. 7, 1886.

Ivanoff on Two Cases of Reunion of Cut-off Fingers.—In the *Russkaia Meditsina*, No. 7, 1885, Dr. S. D. Ivanoff, of Briansk, furnishes details of two interesting cases occurring in healthy soldiers, one of whom had accidentally cut away, by a stroke of an axe, the second phalanx of his right forefinger, while another had severed in the same way the second phalanx of his left thumb. In the former, the part hewn off was still united to the hand by means of a bridge of skin about two centimetres in breadth, the axe having passed through the first interphalangeal articulation, and chipped off a part of the base of the second phalanx. In the other case, the chopped-off part was brought away in a glove; the weapon cut transversely a little above the interphalangeal articulation. In both of the cases the cut was clean, without any crushing of the parts. The first man was seen two hours after the accident; the second, three hours. The wounds were washed with a corrosive sublimate or carbolic solution, and the severed parts were accurately fixed by sutures in their normal situation, after which an iodoform dressing was applied. In both perfect union by the first intention ensued, with return of sensibility and (limited) mobility. [In the *Vratch*, No. 39, 1881, Dr. P. J. Diakonoff, of Orel, reports the case of a peasant who pretty nearly cut his right hand in two, the axe passing in an oblique direction through the metacarpal bones of the middle, ring, and little fingers. The wound was sewn on the next day after the accident. Under a Listerian dressing, the parts united in eight days, partly through the first, but mostly through the second intention. The middle and ring fingers remained immobile and insensible; the forefinger and little finger preserved limited movements. In the

Vratch, No. 45, 1884, p. 764, Dr. V. K. Kampf, of Oster, publishes the case of a badly nourished peasant, aged twenty-one, in whom the right thumb was hacked off by an axe through the phalango-metacarpal articulation, and remained connected only by a palmar bridge consisting of skin and muscles, and measuring two centimetres in breadth. On the second day, the author performed resection of the head of the metacarpal bone (a portion of which was absent), refreshed the wound, introduced a drainage-tube, sewed the parts with deep sutures, dressed with iodoform, and applied splints. Complete union took place. Abduction, adduction, and opposition remained quite free; only flexion of the phalanges and sensibility of the thumb above the scar were lost. A case of reunion of a hewn-off finger under iodoform was also reported by Dr. Evsëenko in the *Tchernigov Zemsky Sbornik*, No. 1, 1884, p. 101. In the *New York Medical Record*, March 28, 1885, an interesting case by Dr. Perkins may be found.]—*Lond. Med. Record*, Aug. 16, 1886.

Jessett (F. B.) on the Surgical Treatment of Certain Tumors of the Neck.—He considers that all innocent tumors in these regions may be safely removed; that malignant growths may be removed when situated in the triangles of the neck, provided they are fairly movable, that the skin and superficial structures are not implicated, notwithstanding their size and the possibility of the large vessels being implicated in the growth.—*Br. Med. Jour.*, Oct. 16, 1886.

Rennie (S. J.) on Enormous Fibro-cystic Tumor in the Parotid Region.—The patient, a Hindoo woman, aged forty-two, with a good previous history of general health, first noticed a small swelling over the left parotid region, at the age of fourteen. This continued to grow very slowly up to three years ago, when, after a slight illness, from which she suffered at that time, it commenced to enlarge rapidly, and soon attained its present size. Owing to the weight of the growth, she was unable to sit up, and had to constantly support it with her hand.

On examination, the tumor was found to be freely movable, and attached by three pedicles; one to the zygomatic arch, a second to the angle of the lower jaw, and the third along the ramus of the jaw opposite the mental foramen. It appeared to

consist of several large separate cysts, with a hard irregular mass at its most dependent part. The lobe of the ear was involved, and the skin stretched tightly over the tumor everywhere, that on the posterior surface being thickened, infiltrated, and beginning to ulcerate.

After removal, the tumor weighed twelve pounds, and measured two feet and seven inches in its long circumference, and one foot nine inches in its transverse circumference. On examination, it proved to be a soft fibrous tumor, with three large and several smaller cysts developed in its tissues.—*Br. Med. Jour.*, Oct. 16, 1886.

Collier (M. P. M.) on the Causes and Prevention of Flat-Foot.—It is a constant practice with surgeons in cases of flat-foot, when not too far gone—when the patient is capable of walking, although with discomfort—to order a pad of leather or other material to be placed on the inner side of the boot to support the arch. Does this support the arch? And how can it? In flat-foot the arch is destroyed. It may compress the internal plantar nerve between the pad and the head of the astragalus, and so become intolerable; but if it does not do so, it is a source of considerable comfort to the patient. Why a pad in the boot on its inner side is a source of comfort to the patient is that it belts up the anterior extremity of the os calcis, and maintains it in its nearly normal position, counteracting the effect to some extent of the displacement, directing the weight of the body to the inner tuberosity of the os calcis, and removing the strain from the plantar structures. The treatment of these cases is simple when not too far advanced: good food, fresh air, and as much rest as possible, with a radical change in the construction of the boot. The toe and heel should change places, or, what amounts to the same thing, a good laced boot should be worn, with the sole quite an inch thick in front, fining off to a line or two at the heel. By these means the normal inclination of the os calcis would be maintained, and the weight of the body properly disposed of.—*Lancet*, Sept. 4, 1886.

Jackson (V.) on Tubercular Ulcer of the Tongue; Partial Removal, Followed by Complete Cessation of the Local Pain.—The patient was a woman, aged thirty-seven. Her youngest sister died of pulmonary consumption, a disease from which she was suffering in the

upper portion of each lung. She states that six months ago she perceived a hard pimple on the front "edge" of the tongue, which was not preceded by any injury or by any irritation in the front teeth, which are well-formed and free from caries. Three months afterwards an ulcer formed and has slowly enlarged, and on account of the great pain which eating and the various movements of the tongue caused, she was anxious, as all local applications had failed to give relief, for something more to be done.

On admission the tip of the tongue was seen to be occupied by a shallow ulcer, oval in shape, measuring half an inch across and a quarter of an inch from above downwards. The floor had a grayish look and was uneven and nodular, the edges being slightly undermined, but there was no surrounding induration, separate nodules, minute ulcers, or enlarged glands.

On April 22d, about three fourths of an inch of the tip of the tongue was removed.

May 4th.—Patient discharged. Wound quite healed. The operation has been followed by a complete cessation of all the distressing symptoms complained of previously.—*Lancet*, Sept. 4, 1886.

Beurmann and Prengrueber on Pneumotomy.—The patient was a child of twelve, with indubitable signs of a cavity in the middle part of the right lung. An incision was made about three finger breadths below the angle of the scapula. The latissimus dorsi was penetrated by a crucial incision, and the fifth and sixth ribs were exposed for an extent of 6-7 centimetres, and parts of them resected. The pleural surfaces were found adherent. For traversing the lung-tissue a moderately heated thermo-cautery was used. At a depth of 3 centimetres the cavity was reached and freely opened. It was not freely irrigated, as the introduction of water caused much coughing. A large drainage-tube was inserted and an iodoform dressing applied. When reported, the condition of the patient was evidently much improved.—*Paris Méd.*, Oct. 23, 1886.

Stevenson (W. F.) on the Treatment of Varicose Veins by the Injection of Carbolic Acid.—The treatment consists in the injection of one minim of pure carbolic acid at different situations into the enlarged veins, having previously cut off the circulation from the limb by means of an elastic bandage placed above

the highest point of puncture. For the latter purpose the tube of an Esmarch's apparatus is best, but a Martin's bandage or two or three yards of elastic webbing will do excellently. Before operating the patient should be directed to stand erect or to sit on the edge of his bed with his heels on the floor, for about two minutes, in order to allow the veins to become distended. The Esmarch tube should then be passed round the thigh one and a half times, sufficiently tight to stop the superficial venous circulation, and a little time (about a minute) given for the vessels to become well filled below it, the remainder of the tube being then applied so as to cut off all circulation from the limb. Injections of pure carbolic acid, one minim each, are then made into the veins at about one inch and a half apart—as many as may be required for each case. A little pledget of absorbent carbolized cotton-wool is placed over each puncture as the needle is withdrawn, and well soaked with collodion; this is allowed to remain until, in the course of time, it falls off, when healing will usually be found completed. The elastic bandage cutting off the blood-supply should not be removed in less than fifteen minutes after the last injection has been made, and great care should then be taken not to remove it suddenly. The circulation should only be permitted to return by very slow degrees. For at least a week after the operation the patient should not assume the erect position or put his foot to the ground for any purpose whatever. The pain is very slight; besides that of the pricks of the needle, a burning sensation is felt at the seat of the puncture, lasting ten minutes or less, and even this is not severe. Certainly no anæsthetic is required. Care should be taken that the subcutaneous injection syringe and needle are "surgically clean," and to ensure this they should have been placed in a 1 in 20 carbolic lotion for about twelve hours previously to use. I have done as many as eighteen injections in one case; and it seems to me advisable to begin with the injection next to the elastic bandage—that is, the one highest on the limb. Getting the point of the needle well into the vein is not quite so easy a matter as might at first appear; attempts to do so at right angles to it frequently fail, and the injection is thus made into the surrounding tissue. The best plan is to fix the skin over the vessel by means of the left thumb,

close below the point selected for puncture, and to direct the needle through the skin and coats of the vein in the long axis of the latter. I should think that, in my cases, somewhere about 10 per cent. of the punctures caused suppuration, a little abscess about the size of a pea forming where this occurred; but this process, as the result of the caustic action of carbolic acid, was curiously slow and almost absolutely painless.—*Lancet*, Oct. 23, 1886.

Gaston (J. McF.) on the Surgical Relations of the Ileo-Cæcal Region.

—A thorough investigation of the morbid conditions of the ileo-cæcal region leads to the following conclusions:

1. That certain modifications are corrected spontaneously, or by the process of resolution under treatment.

2. In the early stage of ileo-cæcal disorders, medicinal or mechanical measures are advantageous.

3. That extra-peritoneal punctures and incisions are beneficial in cæcal inflammation, with or without fæcal abscess.

4. Disorders involving the peritoneum, when not promptly relieved by general treatment, warrant exploratory opening of abdomen.

5. Impediments of the intestinal canal or morbid accumulations in the abdominal cavity, accompanied by meteorism, call for immediate surgical interference, with laparotomy.

6. In case of simple stenosis or malignant growths involving the ileo-cæcal connections, ileo-colostomy is indicated.

7. Gangrenous portions of the intestinal canal necessitate resection, and either direct restoration by suturing the ends or the formation temporarily of an artificial anus.

8. Operative measures in the ileo-cæcal derangements should not be delayed until the physical powers have become prostrated, but resorted to while there is capacity for reaction of the vital forces.—*Four. Am. Med. Ass'n*, Oct. 9, 1886.

Wilkerson (T. B.) on Incision into the Pelvis of Kidney, and Treatment Topically through Drainage-Tube, for the Cure of Bright's Disease

—[Pyelo-nephritis.—Ed. ANALECTIC].—The patient, a man of thirty, dated the inception of his malady to a blow from the falling top of a pine tree, the latter striking him while in a stooping position on the back, in the right lumbar region. This injury was inflicted about one year previous.

Off and on after this the patient suffered from nausea and vomiting, dry skin, thirst, with hectic flush towards night, mental hebetude, œdema of feet, dull, aching pains in the right lumbar region, frequent micturition, albuminous urine of sp. gr. 1008, occasionally containing pus, blood, and casts.

The ordinary operation was performed, and the kidney exposed.

This manœuvre exposed the cyst wall; this being nicked was freely laid open. The extreme tension caused the contained pus in the sac to spurt up nearly a foot. The cyst was slightly mushroom in shape, with the neck toward the pelvis of the kidney. The latter was opened sufficiently to admit the finger, and over a pint of matter was expelled.

Two small cysts situated on the upper edge of the hilum were broken into. These contained albuminoid-like fluid. After thoroughly washing out the abscess cavity with a solution of permanganate of potash, the true cyst wall was well swabbed with a mop dipped in carbolic acid; this was done to destroy the pyogenic membrane. A short soft-rubber drainage-tube was well located in the pelvis of the kidney, and to prevent its displacement, a suture was passed through the instrument, then through both lips of the wound, and tied. The wound was closed by sutures and adhesive plaster. The cavity was directed to be washed out thrice a day with a quarter-grain solution of permanganate of potash. The following pill is invariably used by me after every surgical operation:

R	Acid. carbolic . . .	gtt. xij.
	Pulv. opii . . .	gr. vj.
	Quiniaz sulph. . .	gr. xv.

M.—Make twelve pills. S.—One three times a day.

For forty-eight hours after the operation there was considerable dyspnœa, the patient complaining of a heavy weight resting on the right breast; but little rise and fall were noticed in the thoracic walls of this side. The drainage-tube was allowed to remain in for three weeks. Five weeks after the operation, the wound had healed, and a marked amelioration of the general symptoms was plainly visible—there being a gradual abatement of the renal trouble. The patient continued to improve, and now, four months after, the man is walking about attending to his business, has gained over twenty pounds in flesh, with no evidence of his former trouble. Scarcely a

trace of albumen remains in the urine; the specific gravity is up to the normal standard; he voids the fluid without pain, and in the usual quantity; anasarca has disappeared, and in fact there is every hope that the man has been restored to perfect health.—*Virg. Med. Mo.*, Oct., 1886.

Monod (C.) on Retrograde Catheterization.—The author believes that retrograde catheterization, made possible by suprapubic cystotomy, is indicated in the treatment of impassable urethral strictures when by perineal incision the posterior segment of the canal cannot be found. A similar procedure may become necessary in cases of prostatic hypertrophy with false passages.—*Bull. et Mém. de la Soc. de Chir. de Paris*, July, 1886.

Cadge (W.) on the Surgical Treatment of Stone in the Bladder.—The author summarizes the views as to choice of operation, in a few propositions, which are the nearest approach to rules of practice which our present knowledge on some points seem to admit of.

1. In children, litholapaxy should be more adopted than has hitherto been the custom.

2. In male children, when the stone is at all large, the suprapubic will probably prove to be easier to do, and safer, than the perineal operation.

3. In female children litholapaxy should be the rule for small stones and the high operation for all large ones.

4. In adult females, litholapaxy, or dilatation and extraction, should be adopted for stones of moderate size; vaginal lithotomy for those somewhat larger; and the high operation for those of decidedly large size.

5. In adult males, litholapaxy should be the rule for stones up to an ounce or an ounce and a half; above that size, lateral, or possibly suprapubic, lithotomy—certainly the latter for all stones over three ounces.

6. In the aged, the same rules apply when the urinary organs are healthy; but when the prostate is large and the bladder atonic, suprapubic lithotomy should be more adopted, until its success or failure is demonstrated.—*Br. Med. Four.*, July 3, 1886.

Raven (T. F.) on Retraction of the Penis.—A. B—, a healthy, steady, single man, aged twenty-seven years, shortly after he had gone to bed one night, felt a sensation of cold in the region of the penis. He was agitated to find that the organ, a fairly

developed one, was rapidly shrinking, and was, he thought, finally retreating. He at once gave the alarm, and I was hastily summoned from my bed to attend him. I found him highly nervous and alarmed. The penis had almost disappeared, the glans being just perceptible under the pubic arch. The skin of the penis alone was visible, and looking as it does when the organ is buried in a hydrocele, or, in an extreme degree, as it does after death by drowning. I reassured him, and gave him some ammonia, and found next day that the natural state of things had returned. But he remained weak and nervous for some days. He could give no explanation of the occurrence, and the unnatural condition has never returned.—*Lancet*, Aug. 7, 1886.

Ivanoff on Retraction of the Penis.

In the *Vratch*, No. 26, 1885, p. 423, Dr. A. A. Ivanoff, of Büzülük, Samara Government, publishes the following singular case: A strongly built, generally healthy, married peasant, aged twenty-three, came to a local hospital, evidently laboring under some mental trouble, and stated that "something had broken down below" with him. On stripping the patient a string came to light, one end of which encircled the retroglandular sulcus of the penis, while another end was fastened round the lower part of the left thigh, the member being thus kept down in a tightly stretched state. The patient did not allow the author to touch the arrangement, and himself untied the femoral end of the string. On gradual relaxation of the latter, the penis slowly retracted, and ultimately disappeared altogether under the pubic arch, leaving only a navel-like depression. The part could be got back only by traction on the string. According to the patient's narrative, every thing had been in due order up to five days previously, when, having got up to micturate in a dark night, he was utterly frightened at being unable to feel any trace of his penis. Having managed somehow to pass urine, he, after prolonged manipulations, at last succeeded to get it back, and to retain in the way mentioned. Except slight perineal pain, no other symptoms, and no possible cause whatever for the retraction could be detected. To allay the pain and the patient's distress, bromide of potassium, in ten-grain doses every three hours, was given. On the next day the penis remained unretracted for an

hour or more. Six days later, retraction disappeared, and did not return.—*London Med. Record*, Feb. 15, 1886.

Genese on Nidinized Platina Needles.—They are made with platinized gold head, hardened under hydraulic pressure. This needle can be made as dense as steel, but will be found to work better, if the temper is below spring steel. It will pass through tough tissue easily, and cannot be broken, while the advantage of bending, if required, may be found of great service in some cases. This needle will pass through cartilage or dense cicatricial tissue. If iridium is added in the construction of this needle, it will be so hard that steel can be cut with it. This needle can be made of any shape or size, and it is indestructible under the pressure of the forceps or the action of acids. The eye of a needle is the part hardest to clean; this needle can be cleaned with nitric acid, thus making it an antiseptic needle.—*Med. and Surg. Rep.*, Sept. 25, 1886.

DISEASES OF THE SKIN.

Pospelow (A.) on Idiopathic Atrophy of the Skin.¹—The author's case was a married woman of fifty. When seventeen years of age her left arm and forearm, after exposure to severe cold, were the seat of a reddish macular eruption which disappeared in a few days. During the following year she first noticed a thinning of the skin of the forearm and arm. At the age of twenty-nine she contracted syphilis.

When the patient came to the hospital to be treated for an ulcer on the leg the condition of the arm was as follows:

The skin below the shoulder on the forearm and hand was pendulous and flabby, cold, bluish-red, and rather dry. Rolled between the fingers it seemed thin, and there was an almost entire loss of subcutaneous fat. The atrophic condition extends to the cutaneous muscles, as a cutis anserina cannot be provoked by an ether spray. So thin is the skin that the smallest vessels can be seen under it. The hair follicles are scanty, tactile sensibility is diminished, as is the sebaceous secretion, while the perspiration is secreted in a normal way.

The same atrophic changes invade the

¹ See case by Taylor, *MEDICAL ANALECTIC*, March, 1886, p. 12.

lower part of the thigh, the leg, and the foot.—*Ann. de Dermat. et de Syph.*, Sept. 25, 1886.

Graham (J. E.)—A Clinical Study of Scleroderma.—Mrs. R., forty-seven years of age, had previously suffered from rheumatism. The hardening of the skin began in March, 1882, and was first noticed over the back of the neck. It gradually spread so that in about ten weeks the integument over the greater part of the body was affected. The movements of the limbs as well as those of respiration were impeded. The internal treatment adopted was liquor ferri iodidi and liquor arsenitis. A faradic bath over the surface of the skin was used. In six weeks the skin began to grow softer, and in ten months the patient was quite well. There has been no return of the difficulty.

Mr. H., aged thirty-seven, came under observation in May, 1886. There was a history of hereditary rheumatism. The disease had commenced some months previously. The first symptoms were stiffness of the limbs with œdema of the lower extremities. Then hardening of the skin over the hips was noticed; this gradually spread and was accompanied with pigmentation. The treatment consisted in the administration of potassium iodide at first, and latterly of salicylate of sodium. There has been some improvement under this treatment.

In his remarks in connection with the disease, the speaker referred to the following points: 1, that the disease is found principally in temperate climates and occurs in seasons when there are sudden changes in the weather; 2, that it is more closely related to rheumatism than has been supposed; 3, that although morphea has, in all probability, a similar pathological origin to scleroderma, yet the clinical distinctions are so marked that at present it is expedient to treat it under a different name.—*Four. Am. Med. Ass'n*, Sept. 11, 1886.

Hardaway (W. A.) on Exfoliated Dermatitis (Pityriasis Rubra ?), with Bullous Lesions.—The patient, forty-five years of age, stout and somewhat nervous, was seen Feb. 21, 1886. He had always been healthy. The present disease came on Feb. 1st, after a night of fatigue and exposure when heated. The following day a red patch appeared on the pit of the stomach. Others developed, soon running together, leaving no healthy skin between.

There was very little scaling at first and no moisture. There was some degree of pruritis. When seen by the author the chest, arms, back, and thighs presented the usual appearances of pityriasis rubra. There was no moisture, crusts, or appreciable infiltration. The skin was shining and of a violaceous hue. In the morning a handful of scales could be gathered from the sheet, but they were not as large as usual, and were inclined to be furfuraceous. The face was not involved. Three or four days after the first visit, there appeared upon the thighs, abdomen, and buttocks a number of tense bullæ. Their appearance was preceded by a distinct chill, and followed by a moderate elevation of temperature. The blisters did not run into each other. The bullæ appeared in successive crops of not more than a dozen, each crop being preceded by a chill. Quinine was freely administered and at the end of a week the bullæ ceased to appear. The patient gradually improved.

The writer thought that this and other cases which he had seen showed that diseases usually supposed to run a dry course, may under certain circumstances be complicated with lesions containing fluid.—*Med. News*, Sept. 11, 1886.

Fell (W.) on a Case of Pityriasis Rubra.—The following line of treatment was adopted. The marked suppression of urine being believed to be a clear indication for treatment (arsenic, which was tried for the first few weeks, being given up as useless), hot-air and hot-water baths, with plenty of mild drinks, no alcohol, a fish-and-milk diet, and a mixture of nitrate of potash, scoparium, etc., were tried. The form of diuretic was repeatedly changed; iron and digitalis were tried for some time; also jaborandi, in large doses. The baths were soon given up, for they seemed to be doing no good, although he felt more comfortable after them. Locally, various soothing lotions were tried, first, the glycerole of subacetate of lead; then unguentum diachyli. At the time when he began to improve, he was taking a diuretic of nitrate of potash, squill, and scoparium, and was swathed all over in unguentum diachyli and oiled rags. Oil of cade and vaseline mixed, and tried on a small area, seemed to make him decidedly worse.—*Brit. Med. Jour.*, May 29, 1886.

Greenough: A Few Additional Notes on Psoriasis.—The writer had

found that, as a rule, patients with psoriasis were above par in general health and strength. He considered this latter fact as a strong argument against the possible connection between psoriasis and syphilis. He had never seen psoriasis of the hands unassociated with evidences of the disease in other parts of the body.—*N. Y. Med. Jour.*, Sept. 11, 1886.

Allen (C. W.) on Molluscum Contagiosum.—My present reasons for believing molluscum contagious, and that its name is a proper one, and should be retained, are:

1. The cases reported by Bateman, Mackenzie, F. Fox, Liveing, and others, and a case where the child first had the disease, and the mother afterward, upon the face, neck, or breast, are difficult of explanation by any other theory.

2. The spread of the disease in families, schools, and institutions. Liveing (*Lancet*, Oct. 5, 1878) reported nine cases occurring coincidentally in a school.

3. The facts that the parts exposed to contact are those almost solely affected: The face in children, the breasts in mothers, and the genital region in adults, and especially in prostitutes and the men who visit them.

4. The reported successful inoculations.

5. That negative evidence has no weight. It is not always possible to inoculate other diseases which are well known to be contagious.

Finally, the disease should never be mistaken for any other, although Bazin considered sufficiently like variola to name it *acne varioliformis*. It bears a slight resemblance to varicella, and when occurring upon the genitals, has suggested syphilis to those unfamiliar with its appearance. From molluscum fibrosum the diagnosis is easily made.—*Four. Cut. and Ven. Dis.*, Aug., 1886.

Mittendorf (W. F.) on Two Cases of Molluscum Contagiosum, which had come under his notice in asylums for children. In the spring of 1885, a little girl, having one or two small warts on the eyelid, was admitted to one of these institutions. In a few weeks other children exhibited similar growths on the eyelids, in some cases spreading to the lips and to the nose. Within three months after the admission of the first case, twenty-seven children were more or less disfigured by this affection.—*Med. News*, Aug. 11, 1886.

Tilden (G. H.) on a Case of Probable Tuberculosis of the Skin.—A healthy-looking boy of two years of age was first seen in July, 1885, presenting six or eight cutaneous lesions, scattered over various parts of the body. They were slightly elevated above the level of the skin, of a bright-red color, which disappeared entirely on pressure. These nodules were hard to the touch, with borders of sensible infiltration. These lesions had appeared within the previous five months, and had been very slow in growth. During the previous three months there had been failure in appetite and strength. Softening took place in the nodules, with formation of pus, which discharged, and was followed by cicatrization. About two weeks after the first visit a fluctuating swelling made its appearance. The general health became visibly affected. In November there appeared in the left buttock a swelling, which gave an obscure sense of fluctuation. In the proximal phalanx of one finger there appeared a pyriform enlargement, resembling that seen in dactylitis syphilitica. The child was again seen in February. The swelling in the buttock had increased in size and there was more fluctuation in it. There was at this time sufficient outward curvature of the lumbar vertebræ to justify a diagnosis of Pott's disease. From the course of the disease the speaker thought the most probable diagnosis to be tuberculosis of an unusual form.—*Jour. Am. Med. Ass'n*, Sept. 11, 1886.

Denslow (Le G. M.) on Carcinoma Cutis.—The patient, aged forty-nine years, had been an invalid for several years. He had had a severe pleurisy of the right side, and presented the physical signs of absence of the right lung. The skin of the whole right chest was covered with a nodular new growth, which presented no ulceration. The older portions of the growth were covered with thickened epidermis and thick brown scales. There was slight enlargement of the axillary glands. The different nodules were not movable beneath the skin, but the whole mass was free from the fascia. The duration of the growth was seven months. The patient died four months after coming under observation.

The autopsy showed obliteration of the right lung; the left lung presented many small solid nodules. In the mesentery there was a nodule one and one half inches long by one half inch in diameter. The micro-

scopic examination of these masses showed that in them all connective tissue preponderated. The growth on the skin occupied the papillæ and the deeper portions of the corium. Presented.—*Four. Am. Med. Ass'n*, Sept. 11, 1886.

Atkinson (T. E.) on Scarlatina and Scarlatiniform Eruptions Following Injuries and Operations.—Unprotected persons who have suffered injury, or who have undergone surgical operations, are rather more liable to scarlatina than the unprotected healthy. This increased liability is probably due to diminished power of resistance from disease, and will probably hold with regard to other specific fevers. Scarlet-fever is more apt than the other exanthemata to attack such persons, because its influence is usually more widespread, and because it varies within such wide limits that it often escapes the attention of those who readily detect other infectious disorders, and provide against them.

When an epidemic tendency of the symptoms we have been considering to prevail after injuries and operations is shown, it may be concluded with confidence that true scarlatina is present.

Septicæmia is occasionally accompanied by a scarlatiniform rash, which does not depend upon the scarlatinal poison.

Medicinal eruptions, especially those from cinchona and its preparations, not infrequently follow injuries and operations. These rashes are probably for the most part usually attributed to true scarlatina or septicæmia.

In obstetrical practice, scarlatina is unquestionably capable of exerting a most noxious influence, but as the distinctly scarlatinal symptoms are here decidedly less important than the obscure and dangerous systemic symptoms that the virus seems to induce, the writer does not presume to enter upon the discussion of this branch of the subject before this Association. He inclines strongly to the opinion, however, that in so far as concerns a distinctly scarlatinal rash in these cases, the line of argument followed in this paper is equally applicable.—*Four. Cut. and Ven. Disease*, Oct., 1886.

Finny (J. M.) on a Case of Acute Lichen Planus.—The treatment consisted in alkaline and size baths, sedative lotions, and the internal administration of liq. arsenicalis. In the beginning I em-

ployed pilocarpine hypodermically at intervals. To this I was led by the idea that free diaphoresis would relieve the infiltration and thickening of the skin. The patient invariably expressed herself relieved by the sweating which $\frac{1}{4}$ gr. readily produced, and to it she attributed most benefit. Within the last few days I find in von Ziemssen's "Hand-book of Skin Disease," that good resulted from its use by Dr. Köbner. What seemed, however, to afford more relief to the pruritus than any thing else, including sedative lotions, was warm baths and the use of a lotion containing carbolic acid and liq. carbonis detergens.

I made a tentative though full treatment of chrysophanic acid to the right leg and foot, but I am bound to say that I could not see that it was of the slightest use.

The administration of Fowler's solution of arsenic was commenced in 5-minim doses on Sept. 12th, and the dose was gradually increased up to 13 minims three times a day, when it produced its physiological effects on the mucous membranes of the eyes, stomach, and bowels. It was then intermitted, and after a few days resumed in smaller doses. It was, however, persevered in till the end of October, a dose of 6 minims being well tolerated. Improvement was very doubtful for the first fortnight, but it was then observed that no new spots made their appearance, while a diminution in the severity of the itching and an absorption of the infiltration set in.

On 7th Nov. not a papule remained, though the pigmentation and stains were seemingly unchanged, so that the skin had, as the patient aptly expressed it, an appearance like a "speckled turkey egg." These stains existed for some months subsequently.—*Dublin Four. Med. Science*, June, 1886.

Corlett (W. T.) on Diseases of the Skin in the Subjects of Gout.—The diet is of primary import and does not differ from that employed in the treatment of gout. In this there can be no fixed rules; some require more than their accustomed fare, while others must be curtailed to a Lenten simplicity. All have special idiosyncrasies which are imperative. The things generally to be interdicted are: Rhubarb, strawberries, apples, pickles, sugar, and acids, except in moderation; eggs, lobsters, and fats are generally ill borne. Malt liquors, port wine, and champagne should be especially prohibited, and the free use

of water should with equal emphasis be encouraged. After this the digestion should receive attention; first, the hygienic laws pertaining thereto should be enforced, and, if necessary, vegetable bitters, pepsin, or pancreatin may be given as indicated. Next in importance to the diet is fresh air and exercise. The special medication embraces the alkalies, colchicum, and in exceptional cases the mineral acids. Of the first, the liquor of potassium, ten to fifteen minims well diluted, taken twenty to thirty minutes after meals, as suggested to the writer by Dr. Liveing, of London, is of benefit in a large number of cases. At times Rochelle salts, Carlsbad salts, or the mineral waters are required; they should be taken before breakfast, the former well diluted in hot water. Again, the lithia salts act best; this has been noted when the eruption was accompanied by muscular rheumatism. My very limited experience with colchicum is not favorable to its use. When benefit was derived it seemed to depend on its purgative effect. Local treatment is of little importance except to mitigate suffering. The alkaline baths, preparations of tar, and ammoniated mercury comprise the means most in vogue and best suited to this end.—*Four. Cut. and Ven. Disease*, Sept., 1886.

DISEASES OF THE EYE.

Chevallereau (A.) on a New Dressing for the Eye.—The author has made for him discs of gelosine about six centimeters in diameter and four millimetres thick, medicated with different antiseptics in the ordinary strength of aqueous solutions: boric acid four per cent., for example. Such a disc conforms accurately to the contour of the eye and, covered with cotton, forms an excellent temporary or permanent dressing. Made up into small medicated cylinders and introduced into the conjunctival pouch it makes a good permanent collyria. Advantage may be taken of its tendency to swell by introducing a small medicated cylinder of it into a stenosed lachrymal canal, having slit up the canaliculus. In a half hour it will swell to four or five times its diameter when dry, and dilate the canal in a proportionate manner. Care should be taken to have a thread in the centre of the cylinder to assist in its extraction entire.—*La France Méd.*, July 6, 1886.

Renton (J. C.) on the Value of Corrosive Sublimate Solutions in Ophthalmic Operations.—From the beginning of October, 1885, until the end of June, 1886, in every ophthalmic operation I have adopted the precaution of bathing the eye with a solution of corrosive sublimate, strength 1 to 5,000, whenever the superficial parts of the eye were to be operated on; and 1 in 2,000 in cases of evisceration, operations on the eyelids, etc.

One hundred and fifty-two operations have been performed, and these include 23 operations for cataract, 34 iridectomies, 11 cauterizations for ulcer of the cornea, 8 eviscerations, 12 tenotomies for strabismus, 2 trephinations of the cornea for conical cornea, and 35 in which the canaliculus was slit open. In none of these did inflammation or suppuration follow; this fact I cannot but regard as a testimony to the value of the antiseptic employed, all the more so as in every previous winter I have invariably seen eyes destroyed by acute suppuration after very slight operations. Cocaine solution (four per cent.) was used regularly along with the sublimate solution, and I have not as yet been able to satisfy myself that any harm has accrued from it.—*Br. Med. Four.*, Sept. 1, 1886.

Andrews (J. H.) on the Frequent Instillation of a Two-per-cent. Solution of Nitrate of Silver in Purulent Ophthalmia.—He has employed this method in twenty-five cases of gonorrhoeal ophthalmia, and the eyes were seriously damaged in none of them. The cases were all severe, with much discharge, chemosis, and swelling of the lids. The applications were repeated usually three times a day, sometimes five. The use of the nitrate of silver was graduated to the amount of hyperæmia, and especially to the amount of swelling of the lids.—*N. Y. Med. Four.*, Aug. 14, 1886.

Eaton (F. B.) on the Treatment of Detachment of the Retina without Operation.—Robert R., æt. 14, was brought to me by his mother April 8, 1886. Four years ago he was kicked over the right eye by a horse, and has been blind in that eye ever since. Two years ago he was hit in the left eye with a snow-ball, which blinded him at once, and he had to be carried home. The left eyeball was very red and much swollen, as were the surrounding parts. For some time he was almost blind, but the day after the accident he could see

a little out of the left eye, and in a short time as well as ever. One year ago the sight of the left eye began to fail, and in two weeks the sight was as bad as now.

Status Præsens.—Traumatic cataract R.—V. R. E. shadows. External strabismus R.—V. L. E. fingers at six feet. Eccentric vision (upward and inward). Ophthalmoscope shows detachment of retina of nearly the whole of the lower half of the retina (lower and outer quadrant). Central arterial branches smaller than normal.

The detachment extends to the edge of the disc downward and outward.

The field of vision of the left eye shows not only contraction corresponding to the detachment, but also that of colors.

I resolved to make a thorough trial of free diaphoresis before undertaking any operation. This was carried out systematically and faithfully, the Turkish bath alternating daily with pilocarpine $\frac{1}{4}$ gr. After ten days, however, I gave the boy powders of sodium salicylate five grs. each, three to be taken ten minutes apart (fifteen grains) during the bath.

April 17th.—Fingers at sixteen feet.

April 21st.—The fundus looks much better, the outlines of the disc being clearer and the arteries fuller. Considerable fluid is still to be seen at the lower periphery, however. I now began the use of strychnia injections.

April 26th.—V. L. $\frac{15}{12}$.

May 1st.—V. L. $\frac{15}{12}$; fundus shows marked diminution of the sub-retinal fluid.

Field has extended outward and upward.

He now left for home with instructions to carry out the treatment by means of an artificial Turkish bath apparatus and the powders. I also instructed his mother to apply a pressure bandage at night.

So confident am I that a thorough diaphoretic course, carried out under the surgeon's eye, has every thing to recommend it as a rational means of treatment, that I shall not hesitate to try it even in desperate cases, with or without puncture. — *Am. Four. Ophth.*, Aug., 1886.

Chisolm (J. J.). An Acute Attack of Glaucoma Induced by the Local Application of Cocaine.—Mr. C. G. E., aged forty-eight, was operated upon for glaucoma fifteen months since. Vision had commenced to fail in the left eye with sharply bent vessels. $V = \frac{15}{12}$. In the right eye he still retained good vision, $\frac{15}{12}$, with deep physiological pitting of the disc and

bending of vessels at one part of the rim. From the double iridectomy he recovered promptly, and by aid of reading-glasses has been doing well. Recently he consulted me in reference to his glasses, which were not as clear as formerly, and needed changing. There was myopic astigmatism $\frac{1}{8}$ —c, to which was added presbyopia $\frac{1}{8}$ +. With these glasses he read Brilliant, and with the cylinder alone he exhibited V. = $\frac{15}{12}$, showing perfect vision in the right eye. In this eye there had been for four days some mattering and redness, a catarrhal ophthalmia brought on by exposure in railroad travel. I suggested to him that a one-per-cent. solution of nitrate of silver followed up by a zinc sulphate lotion, would soon relieve him of the surface inflammation, and that to prevent pain from the caustic drop I would first use cocaine. The cocaine four-per-cent. drop was applied, and in five minutes the caustic drops. There was no discomfort from it for the moment, but in ten minutes the eye felt very hot and burning, which induced me to reapply the cocaine. This has been my rule of practice in catarrhal ophthalmia: to suppress the pain of caustic collyria by cocaine. As soon as he felt comfortable, he left my office with instructions to go to the hotel, and apply cold cloths to the eye if it caused pain. Within three fourths of an hour he returned to my office with the statement that his eye had become painful, and that he could no longer see out of it. In closing the left eye, he could not see to count fingers at two feet, with an eye which had $\frac{1}{8}$ vision one hour before. Upon examination, I found the pupil widely dilated and smoky. Tension +. An ophthalmoscopic examination showed no sudden hemorrhage, which I was fearful of. This gave me grounds for alleviating his fears with the statement that an antidote would soon make all right again. He had become sick from fright, and felt very faint. I applied a one-grain solution of eserine freely to the eye, and drew blood from the temple with the artificial leech; also ordered cold cloths as a local dressing. In two hours there was a visible improvement to him, so that he could see again large objects, and in six hours sight had entirely returned to the extent of reading Brilliant with his glasses and seeing $\frac{1}{8}$ for distance. — *Am. Four. Oph.*, Aug., 1886.

Thompson (J. H.). An Obscure Case of Exophthalmos.—A little boy

five years old received a slight cut across the face from a whip in the hands of a playmate. The only manifest result was a slight scratch on the bridge of the nose. There was mumps in the neighborhood, but at this time the child was in perfect health. Some two weeks after the receipt of the injury, and after all traces of the blow were off the face, he began to complain, at night, of pain in his head. It was paroxysmal, for he would start up from a sound sleep, cry a moment, say that the side of his head and eye hurt him, and as quickly fall asleep again. This would happen three or four times during the night. At other times there were no indications of trouble. The eye projected about one half inch forwards, but not so far that the lids could not be closed. It was forced outwards in the axis of the orbit; was slightly movable in all directions, but could not be pushed back into the socket by moderate pressure. There was no swelling of the lids, nor any congestion or œdema of the conjunctiva. In fine, the external eye and its surroundings were normal. I searched carefully for evidences of periostitis and cellulitis, but found none. The internal eye, other than a slight clouding of the disc, perhaps some swelling, and an enlargement of the veins, was normal. Vision was good.

Under an anæsthetic the orbit was explored both with the finger and the hypodermic needle. A small drop of serum was the result. I attempted to replace the eye, but could not. It seemed as if the orbit was filled with some hard substance.

The patient was placed upon tartar emetic and saline cathartics, with the hope that if there was a serous effusion absorption might take place. After three days' trial, the medicine did no good, but made the patient utterly miserable. I withdrew all internal medication, prescribed a simple belladonna and white precipitate ointment for the forehead, tied a silk handkerchief over the deformed parts, and turned the child out to play with his companions. In one week he was well, the eye returned to its normal position. I afterwards examined it with an ophthalmoscope, but could not find that it had been damaged in the least. During all the time there was no quickening of the pulse, and no elevation of the temperature.—*Four. Am. Med. Ass'n*, Oct. 30, 1886.

Hamilton (T. K.) on Tumor

(Round-Celled Sarcoma) Removed from Orbit of a Child.—A child, aged about three years, was brought to me on February 14th of this year. On examination, I found a very considerable amount of proptosis of the left eye, it being, I should say, from one to two centimetres in advance of the right, the eye-ball apparently pushed upwards and outwards, causing a well-marked strabismus in these directions. On account of the extreme amount of divergence and the child's restlessness, I failed to get a view of disc, only seeing the red reflection of the choroid, and at the same time satisfying myself of the absence of any intra-ocular growth. Upon the following day I proceeded to remove the tumor. As the child could evidently see with the eye, I determined to make every effort to save the eyeball. Having found by careful examinations the maximum point of protrusion, I made a free incision at a point corresponding to the space between the internal and inferior recti muscles—that is, at the lower and inner part of the orbit. Directly the conjunctiva was divided, an elastic growth protruded, which was found to extend deep down into the orbit. I removed it carefully, taking away all I could reach, but as it extended down to and around the optic nerve, I felt sure I had not completely eradicated it. Having got all I could, I closed up the wound and put on pressure. The growth seemed to be reproduced with enormous rapidity after this removal, for upon February 19th (only four days afterwards) it had assumed larger dimensions even than before, and the proptosis was more marked, so that the cornea was beginning to be abraded from exposure, the lids being unable to cover it. As nothing short of a thorough cleaning out of the orbit now remained to do any good, I removed the eye and with it a large mass of soft elastic material. The after-treatment—extending over the next two months, during which time the child was kept under constant observation in hospital—consisted in the application of a chloride-of-zinc paste on two separate occasions to prevent the regrowth which seemed to threaten, and the maintenance of firm pressure by medicated wool frequently packed into the orbit. At the expiration of the two months the child was allowed to return home, having picked up flesh for some weeks previously, but no sooner was the case re-

moved from daily supervision than the rapid reproduction of the growth commenced again, and in five weeks' time it had assumed such great dimensions that further surgical interference seemed quite useless. The child lived for two months after this, and then died terribly reduced. The father informed me afterwards that the growth (to use his own expression) "grew as large as half a loaf."—*Australas. Med. Gaz.*, June, 1886.

Baumler on a Case of Alveolar Sarcoma of the Orbit, Affecting the Globe Secondarily.—The patient, Frau A. A., was a woman aged fifty-two, who had always had good health. Ten years ago, proptosis of the left eye was noticed; this gradually increased without any pain, and without any impairment of vision till a few months ago. The history, however, in the latter respect was a little uncertain. When she was seen the general health appeared to be good. There was great proptosis of the left eye; the globe was displaced downwards and inwards, and was immovable. The pupil was of medium size, but inactive. There was no perception of light; no tenderness. There was well-marked papillitis, with slight swelling, and grayish cloudiness of the adjacent retina. On enucleating the globe, its posterior part was found to be firmly adherent to the tumor. About one centimetre of the optic nerve, being imbedded in a portion of the tumor, was removed with the globe. The remaining contents of the orbit were then removed without difficulty. The tumor, which was of firm consistence, completely filled the orbit, enveloped about the posterior fourth of the globe, and completely surrounded the optic nerve, which was somewhat shrunken. The intervaginal space was dilated, and contained portions of the tumor. The structure was that of an alveolar sarcoma; at one point it had perforated the dural sheath of the nerve, and extended within it and the intervaginal space up to the globe. The optic disc and immediately adjacent retina were very prominent, being pushed forwards by a deposit of the tumor, within the substance of the subjacent choroid, which formed a complete ring round the optic-nerve entrance, of a breadth varying from one to three millimetres. No direct continuity could be seen between the orbital and intra-ocular portions of the tumor; but the appearance of one of the ciliary arteries suggested

that the growth had reached the interior of the globe along these vessels.—*Klin. Mon. f. Augenheil.*, in *London Med. Record*, March 15, 1886.

Taneyhill (G. L.) on Restoration of Sight by a Fall.—A lady, æt. 65 years, fell down stairs, striking upon the right supra-orbital ridge, causing laceration, ecchymosis, and a considerable degree of hemorrhage. The patient claims to have been born absolutely blind in her right eye. One week after the accident, while the doctor was dressing the wound, she suddenly exclaimed that she could see. Upon examination, he found that there was perception of light, and that when held in certain positions she could count fingers. There is apparently no lens present, but there is a calcareous condition of the capsule with a superior synechia. He thinks the explanation for the sudden transition is, that in the fall there was a displacement of some of the opaque media, thus making an opening for the passage of light.—*Med. and Surg. Reporter*, Sept. 25, 1886.

Randall (B. A.) on Two Cases of Severe Traumatism of the Eye, with Partial Dislocation of the Lesser Crystalline Lens.—In the first case there were three points of rupture of the sclera. The upper half of the lens was in the anterior chamber, in front of the iris, the lower half apparently being in nearly the normal position. The lens receded under rest in bed and other appropriate measures. The scleral rupture healed, and vision increased to about one thirtieth of the normal. The injured eye shows little tendency to grow worse, although the lens is still luxated backward.

In the second patient, a boy aged twelve, the lens was less markedly luxated, but the ophthalmoscope showed two rents in the choroid, the larger a little outside of the macular region, the other close to the temporal margin of the optic disk. The case progressed to an excellent recovery. The appearances of the eye-ground were illustrated by colored sketches.—*N. Y. Med. Rec.*, Aug. 14, 1886.

Andrews (J. A.) on the Effect of the Electric Light upon the Eye.—No case of injury to the eye from the incandescent light has been reported, and out of eleven hundred workers with the electric incandescent light examined by the author, there was not one complaint. Those suffering with errors of refraction claimed that

the sight was improved. The light used was from twelve to sixteen candle power, and provided a shade to protect the eyes.—*Med. News*, Aug. 14, 1886.

Jastrow (J.) on the Dreams of the Blind and the Centres of Light.—Two hundred blind persons of both sexes were questioned at the institutions for the blind in Philadelphia and Baltimore, and it was found that those who became blind before their fifth year never dreamed of seeing; of those whose sight was lost between the fifth and the seventh year, some did and some did not, see in their dreams; while all whose eye-sight was destroyed after the seventh year had quite as vivid dream-visions as seeing people. The fifth to the seventh year is thus shown to be the critical period. This period corresponds with the age which authorities assign as the limit to which a child becoming deaf will also become dumb; and also with the age of one's earliest continuous memory of one's self.—*Med. News*, Sept. 18, 1886.

Chisolm (J. J.) on Deficiency in Both Lower Eyelids.—The case was one of a deficiency of both lower eyelids, the result of cicatricial contraction from two scars on either side of the nose. The scars were the result of operation for the closure of a very high degree of double hair-lip. The fissures extended almost to the inner canthus of each eye, and back through the bony portions of the face, there being an absence of the intermaxillary bones.—*Med. and Surg. Reporter*, Sept. 25, 1886.

Andrew (E.) on Permanent Closure of the Orbital Cavity.—The writer referred to a man in whom he had performed his operation for permanently closing the orbital cavity, after excision of the eyeball, by removing all the ocular and palpebral mucous membrane, the cartilages, and the edges of the lids, and allowing the cut surfaces to unite. The advantages of this method are great in the case of the working classes, as the need of the artificial eye is avoided, and there is no tender surface for dirt to irritate.—*Provinc. Med. Four.*, Sept. 1, 1886.

Symons (M. J.) on Corneal Changes in Acquired (?) Syphilis.—The case was one of double symmetrical changes in the cornea of a man aged twenty-nine, who had acquired syphilis eight years before. There were thinning, bulging, and opacity

over limited areas of both corneæ, without any disturbance of the epithelium. The iris was partially adherent in both eyes.—*Provinc. Med. Four.*, Sept. 1, 1886.

VENEREAL DISEASES.

Mencault (J.) on Inguinal Chancre with Phagedena.—The patient was a railroad hand, aged twenty-eight. For two months he had had a large ulcer in the left groin. It developed in that spot from a slight excoriation, which came the patient knew not how. It was indolent but gradually spread. The ulcer was of triangular shape, with its long axis parallel to Poupart's ligament, and extended from within 3 centimetres of the root of the penis, in the pubic hair to within 3.5 centimetres of the anterior superior spine of the same side. It was 12 centimetres long by 4.5 wide in its widest part.

Its surface was depressed, red, and covered by a greenish-yellow, purulent secretion. The edges were dry, hard, and slightly elevated, sinuous, and not sharply defined. The skin about was pigmented and brownish. Upon the glans, scrotum, abdomen, and back there were many erosive syphilides, papular and simple. The glands were enlarged in both groins, but not excessively.

The ulceration in the groin appeared fifteen days after the last intercourse. The roseola passed entirely unnoticed.—*Ann. de Dermat. et de Syph.*, Aug., 1886.

Mathieu (M.) on Chancre of the Eyelid.—A previously healthy woman nursed the child of a coachman, the child dying in four weeks with undoubted lesions of malignant syphilis, emaciation, papular eruption, mucous patches, erythema, and palmar and plantar pemphigus. Twenty-three days later there occurred a papular eruption about, and induration of, the left nipple, and three analogous ulcers on the areola. A fifth sore appeared on the right breast, but ten or twelve days later.

Simultaneously with the first four there appeared a chancre on the left eyelid. It occupied the cutaneous surface of the internal palpebral commissure. The lid was swollen and hard, and there were subconjunctival infiltration and chemosis. There were glandular enlargements about the inframaxillary articulation and left parotid.

A roseola appeared in thirty-four days.—*Lyon Medical*, July 4, 1886.

Baudry on Chancre of the Eyelids.—M. Baudry, of Lille, reports two cases in which children suffering from catarrhal ophthalmia were infected with syphilis by the saliva of syphilitic persons, which was used to remove the secretion from the edges of the eyelids. In one case, the source of contagion was the sister of the child's nurse, and in the other the child's own mother.—*Ann. de Derm. et. de Syph.*, 1885, No. 7. *London Med. Record*, April 15, 1886.

Nivet on Ulceration Following an Abscess of Bartholin's Gland, Simulating Chancroid.—A chambermaid, aged twenty-one, presented herself with a single ulceration seated on the inner surface and middle region of the left smaller labium, just within the vulvo-vaginal orifice. It was as large as the nail of the little finger, oval, depressed, with punched out slightly elevated edges, with an irregular, yellowish base, which is covered with pus. There was no induration or bubo.

She gave the history of a swelling and sudden purulent discharge from the part; and this, together with the absence of bubo and the fact that she had not submitted to sexual intercourse for a month before the primary lesion, led Fournier to diagnose "a chancre-like vulva ulceration consecutive to an abscess of Bartholin's gland."—*Ann. de Dermat. et de Syph.*, Aug, 1886.

Nivet on Gummata of the Lips, Simulating Hard Chancres.—A man of twenty-eight presented himself with a roundish ulcer on the free border of upper lip on the left side. The ulcer was sunken, with rather uneven borders, a red foul surface, and indurated base. Outside the left labial commissure there was a scabby, ser-piginous lesion, also having an indurated base. The submaxillary glands were not enlarged. On questioning, it was found that the present trouble commenced two months previously; the primary lesion on the lip having been a small tumor, while that at the commissure consisted of two smaller papules.

It was finally ascertained that the patient had had a hard chancre on the penis seven years previously.—*Ann. de Dermat. et de Syph.*, June 25, 1886.

Guranowski on Soft Chancre of the Middle Ear.—The *Gazeta Lekarska*, a

Polish medical journal, contains a report of a case of soft chancre of the middle ear. The patient was a woman with a phagedænic chancre of the genitals, who from snuffing tobacco managed to introduce the virus into the nose, where the septum had become ulcerated, with copious discharge of foul pus. From this the infective material must have passed through the Eustachian tube into the middle ear. Deafness and pain were complained of, and subsequently perforation of the tympanic membrane occurred, a large quantity of purulent matter being discharged through the opening and infecting in its turn the external meatus. The case was treated by the introduction of iodoform into the ear and nose, and by injecting warm water through the ear by means of the Eustachian catheter. In a month's time the patient regained her power of hearing and completely recovered. Dr. Guranowski has a great belief in the efficacy of washing the middle ear with warm water, having seen cases of severe inflammation recover under this treatment where it was feared that the only hope of saving the patient's life lay in trephining the mastoid process.—*Lancet*, Aug. 7, 1886.

Mauriac (Ch.) on Sclerosis of the Corpora Cavernosa.—The connective-tissue transformation consists principally of nodules, patches, cords, and bands, which occupy the upper and more superficial layers of the erectile tissue. The author scouts the idea that it is a lesion of syphilis. According to him, gonorrhœa is the least doubtful and most common cause. It does occur spontaneously or from a traumatism, and it is possible that rheumatism may play some part in its etiology. It develops in an insidious, indolent way without inflammation. Its symptoms consist in deviations, incurvations, and deformities of the penis when erect. These deviations are lateral or upwards; never downwards, as in chordee.

There are diminution of the calibre of the organ at various points, feebleness of erection, and disappearance of the sexual sensation.

The deformity embarrasses or prevents coitus, and brings on various psychical disturbances. The course of the disease is very slow, no appreciable change taking place in months or years. No known treatment has had any curative effect.—*Gaz. Hébd. de Méd.*, etc., Oct. 8, 1886.

PATHOLOGY.

Grasset on Combined Tabes (Ataxo-Spasmodic), or Postero-Lateral Sclerosis of the Cord.—According to the author, this disease is characterized by the association of symptoms of ataxic tabes (fulgurating pains, anæsthesia, motor incoördination) with those of spasmodic tabes (paralysis or paresis, and besides contractures, or other phenomena of motor excitement) and those common to all cases of tabes (cerebral and medullary troubles).

Anatomically it is characterized by a myelitis of a special and constant location. The lesion consists of a sclerosis, systematized in the posterior columns, diffuse in the lateral columns. The clinical characteristics of the disease easily separate it from ataxic and spasmodic tabes, diffuse myelitis, and sclerosis en plaques. The therapeutic indications are the same as those of progressive locomotor ataxia.—*Arch. de Neurol.*, July, 1886.

Stokes (W.) on Acute Myxœdema Following Thyroidectomy.—A young woman, aged eighteen, came under my care in the Richmond Hospital, on September 25, 1885, suffering from an extensive enlargement of both lobes of the thyroid. On October 21, 1885, I removed the left lobe.

After the operation, the progress of the case was most satisfactory, nothing specially occurring that would justify record.

On February 3d, I proceeded to complete the thyroidectomy by the removal of the right lobe.

On February 14th, I found all going on satisfactorily as regards pulse, temperature, respiration, and appearance of the patient generally. Her appetite was good, and she had slept well. The only thing she complained of was a "dull aching pain" which she suffered from in her legs and knee-joints; no local cause for this pain could be ascertained.

On the following day, I was grieved to learn that the patient had, at 6 A.M., a convulsive seizure, "resembling epilepsy," as my assistant stated, lasting about a minute, and characterized by clenching of the hands, dilatation of the pupils, slight stertorous breathing, eyes wide open and staring, frothy discharge from the mouth,

and marked acceleration of the pulse during the fit. These symptoms only lasted, as I have stated, about a minute, and she then fell asleep.

On subsequently examining the patient, I observed a puffy swelling about the eyelids, and a similar condition on the backs of the wrists, and over the metatarsus of both feet. There seemed also some mental torpidity indicated by the length of time she took before answering a question, and the slowness of her utterance. The answers, however, when made, indicated that she understood the interrogation.

On the 15th, there was no change, the patient not complaining of any thing except occasional pains in the arms and legs.

The following day these pains were more intense, and she had, in the afternoon, another convulsive seizure, resembling the one she had on the 14th. It lasted, however, longer, and the symptoms intensified, namely, great lividity of the face, stertorous breathing, dyspnœa, quick pulse, eyes staring and protruding, pupils dilated, carotids throbbing, and the attack ending by a copious perspiration, after which she fell quietly asleep. On the following day, the report was favorable. The temperature and pulse were both reduced, the former to 100° Fahr. and the latter to 84. She was free from pain in her wrists, but complained of them in her knees; immediately below the right one, there was a slight but still distinct puffy œdematous swelling. No albumen in the urine was determined. I observed, however, an increase in her mental torpidity, the eyelids were more puffy, and the expression of her face, naturally an intelligent one, had an aspect of imbecility which I had never previously noticed. From this on to the 20th, the symptoms already mentioned became more intensified. The convulsive seizures recurred with greater frequency, each one leaving the patient weaker than before, and with the intellect more impaired. On the 21st, she had two such attacks, and on this day there was evidence of pulmonary infiltration. On the following day, there was no improvement, and the patient was, intellectually, more dull and listless than ever. On the 22d, she had two more convulsive seizures, and the pulmonary infiltration was much more intense, and it was painful to watch her unavailing efforts to clear the air-passages. These symptoms continued unaffected by treatment for the two follow-

¹ See *MED. ANALECTIC*, Aug., 1886, p. 337.

ing days, when the patient sank, apparently from exhaustion. Professor Purser, of Trinity College, who kindly examined the brain, heart, and lungs for me, found nothing abnormal in the two former organs, but found the lung "highly œdematous. The epithelium of the air-vesicles was swollen, and many of the cells were loosened and desquamating." In fresh preparations, he could see that many of the swollen cells contained fat. Further than that, the portion of lung examined presented no change of note. I may also mention that Professor Purser examined a small nodule of the tumor that was left on the front of the trachea, and found it composed of glandular tissue resembling that of the normal thyroid body.—*Brit. Med. Jour.*, Oct., 16, 1886.

Spillmann (P.) and Ganzinotty on the Association of Acute Articular Rheumatism and Typhoid Fever.—The two diseases coexist, the rheumatism commencing before or a very short time after, the fever, and often continuing after the fever ceases: The rheumatic manifestations stop short of the purulent arthritis, which occurs only too frequently in secondary infectious rheumatism. This form of rheumatism is not amenable to the salicylates, but yields temporarily to antipyrin, which affords permanent relief to the pains in the joints if persisted in.—*Rev. de Méd.*, Oct. 10, 1886.

Prevost on Rupture of the Synovial Membrane of the Knee.—A man of forty-five, with a gleet of several years' standing, but otherwise healthy, developed a synovitis in the right knee. Later there appeared a similar condition of the left. All external and internal remedies were unavailing. The swelling increased rapidly, and gave rise to excruciating pain. During a violent paroxysm of pain the patient braced against the head of the bed and rigidly extended the limbs. He at once felt an excessively painful shock in the knee and thigh, and for the moment lost consciousness. He soon rallied, and found himself free from pain and the knee of normal size. When seen by the physician the synovial fluid had disappeared from the knee-joint, but pervaded the areolar planes of the corresponding thigh, diffusely, to such an extent that 10-15 centimetres above the patella the right thigh measured 8 centimetres more than the left.

Rest and bandaging effected a complete cure. On inquiry it was ascertained that a similar occurrence had happened to the patient eight years before.—*La France Méd.*, July 27, 1886.

Coats (J.) on a Case of Double Uterus and Absence of One Kidney.¹

—The principal interest in this case centres in the state of the internal organs of generation. There are practically two uteri, each capable of accommodating a foetus, and, if my interpretation of the facts be correct, each had carried a foetus at the full time. The two organs are nearly of equal size, but the left appears rather smaller, chiefly because its cavity is less; its walls, however, being correspondingly thicker. The actual measurements are, from fundus to os, right, 7 inches,—left, 4½ inches; greatest breadth, right, 2½ inches—left, 1½. The two uteri have each an independent cervix and cavity, and even externally they diverge considerably, but they are adherent to each other by their internal borders to an extent corresponding to the cervix—namely, 1½ inch. Each has a separate os, by which it opens into a wide vagina, which is common to both. Above the cervix the body of each uterus is entirely distinct. Viewed from without, their internal aspects, or those facing each other, are smooth and rounded, and where they join below they do not form a proper angle, but rather a rounded hollow. On the external aspect the right uterus has a normal broad ligament, ovary, and Fallopian tube. The left uterus is greatly involved in adhesions on its external aspect, but in the midst of these the contorted Fallopian tube and the ovary were discovered. The lower extremity of the great omentum was firmly adherent to the anterior and right surface of this uterus. These various adhesions were evidences of inflammation at some former period, probably at the date of a former pregnancy. A further evidence of inflammation at an earlier period is the existence of several cysts filled with altered blood (hematoceles) in the midst of the adhesions. The largest of these is displayed in the preparation; it is adherent on the external and posterior surface of the uterus, and has a

¹ The clinical history in this case was published by Dr. Alex. Patterson in the *Edinburgh Medical Journal* of August, 1885, along with an excellent lithographic illustration of the uterus as presented *post mortem*.

length of $1\frac{1}{4}$ inch. It possesses a dense connective-tissue wall, and it contained brown debris, being altered blood.

The urinary bladder has a wide torn aperture in its posterior wall, by which it communicates with the vagina. The aperture and vagina are coated with earthy phosphates. Looking at the vagina from within, the aperture in its anterior wall is seen, and this is continued upwards and to the left, forming a ragged rent or tear near the os uteri. It was noted that the left kidney was entirely absent, not a trace even of the ureter being visible, evidently another congenital malformation. The right kidney had undergone compensatory hypertrophy in the usual way, and weighed nine ounces. It contained three or four small abscesses, and the pelvis and the ureter were somewhat dilated. The spleen was much enlarged and so soft as to be almost diffuent. The liver was not remarkable, weighing 3 lbs. 6 oz.

The woman was delivered of a male child, at or near the full time, on 15th March, and died on 1st April. The foetus had been lodged in the right uterus, whose internal aspect presents a rough surface on the anterior wall to which the placenta had been attached. The uterus has been undergoing involution, but is still much larger than the unimpregnated organ. The left uterus had enlarged along with the right, but its cavity is smaller and its internal surface perfectly smooth. The condition of this uterus corresponds with that which the organ usually presents in cases of extra-uterine foetation.

I think the reasons are nearly conclusive for believing that the left uterus had borne a foetus at a former time. The woman was delivered of a child two years before. The adhesions and hematoceles already described point to a former inflammation which might well have existed at the time mentioned.—*Glas. Med. Jour.*, Sept., 1886.

Gross (of Nancy) on Osteoma of the Os Calcis.—A man of forty-eight, after two sprains and an ulceration of the sole of the foot, noticed that his heel commenced to grow larger. The bone was removed, when it was seen that a pericalcanean, osseous tumor surrounded the bone except over its articular surfaces, and formed real tunnels for the tendinous sheaths. The ossification seemed to have started from the tendo Achillis, and from there to have invaded rapidly, perhaps

simultaneously, all the pericalcanean fibrous tissues, even the fibres of the neighboring plantar muscles.—*L'Union Méd.*, Aug. 31, 1886.

Robinson (A. R.) on Chondroma of the Upper Lip.—The tumor occupied the right side of the upper lip of a man thirty-six years of age. It had been growing for two years. The mucous and cutaneous structures were freely movable over the tumor, which was sharply limited, somewhat encapsulated, and nourished by a small artery entering at the base. Microscopical examination showed the tumor to consist of embryonic, gland, and connective tissue. The affection was considered to be very rare. It had been described by Paget, under the name of labial glandular tumors.—*N. Y. Med. Jour.*, Sept. 11, 1886.

Gould (A. P.) on a Case of Undeveloped Sexual Organs, Associated with Congenital Defect of the Tonsils.—A. W., twenty-seven years of age, over six feet high, slender, with fair, soft, smooth face, a boy's voice, and no hair on his face. The penis was small, testicles both quite small, but the right epididymis was thickened, which Mr. Gould attributed to a blow on the part when the boy was eleven years of age. The prostate could scarcely be felt through the rectum, and the seminal vesicles could not be felt. The man has no sexual desire; the only sign of any sexual activity was occasional slight priapism. There was an oblique inguinal hernia on the right side. The pillars of the fauces were close together, and only very small tonsils could be seen or felt between them. Mr. Gould said the case raised the question whether there is any intimate connection between the tonsils and the testicles. It is a popular notion that excision of the tonsils before puberty endangers virility, and Dr. Shorthouse, quoted by Dr. Ogle, was named as a writer who spoke of such an effect as a matter of common observation. The shrinking of enlarged tonsils, and the cessation of repeated attacks of tonsillitis at puberty, were adduced in support of the influence of sexual maturity upon these organs. On the other hand, in Zanzibar, where all boys have their tonsils excised, the testicles are well developed, and the operation now is so common that, were it liable to be followed by such a grave result as non-development of the sexual organs, abundant evidence of this

fact would be forthcoming. The removal of an enlarged organ was different from its imperfect development, and might be attended with different results.—*Med. Press and Circular*, Oct. 13, 1886.

Boxall on Incomplete Pericardial Sac; Escape of Heart into Left Pleural Cavity.—A woman died with symptoms simulating pulmonary thrombosis on the third day after the birth of her third child; the necropsy, however, showed that a very peculiar accident had occurred. The pericardium on the left side was represented only by a sickle-shaped fold attached to the diaphragm, and forming a pocket three quarters of an inch deep. The heart was found lying in immediate contact with the lung, its apex being situated nearly three inches to the left of this pouch, from which it had evidently escaped during a severe attack of vomiting on the second day after delivery. This accident was followed by dyspnoea and collapse, in which the patient died thirty hours later.—*Br. Med. Jour.*, Oct. 23, 1886.

Lardier on Subpectoral Phlegmon, Called Spontaneous, among Alcoholics.—Subpectoral phlegmon among alcoholics is the result of fatigue and overwork—auto-traumatism so called. It is capable of absorption, and sometimes during absorption develops metastatic abscesses, which show auto-infection. To prevent this the indication is to open the abscess as soon as fluctuation can be obtained. Medicinal treatment is confined mostly to strychnine, of which alcoholics tolerate large amounts.—*La France Méd.*, Aug. 28, 1886.

Mendelson (W.) on the Pathology of Gout.—In the present imperfect state of our knowledge it may be yet too early to declare in favor of any one particular theory, still it seems to me that a combination of the principal views now prevalent is easily possible.

We may begin by supposing an altered manifestation of nerve action: this results either in a disturbance of the uric-acid excreting function of the renal epithelium (Garrod), or in an increased production of uric acid in the muscles and bones (Ebstein); and that deposition occurs either from diminished alkalinity of the blood (Garrod), or from the acid reaction of necrotic tissue (Ebstein),—keeping, in the meanwhile, our minds open to the fact that really satisfactory proofs are still entirely

lacking to move us to the acceptance of the existence of any of these conditions. We must remember that Garrod's statements regarding the reaction of the blood still lack exact confirmation, and that Ebstein's supposed uric-acid-forming power of muscle and bone is as yet entirely unproved.—*N. Y. Med. Jour.*, Aug. 7, 1886.

Gannet (W. W.)—Should Nurses Who are Tuberculous be Allowed the Care of Children?—In conclusion, the writer states that he does not believe that facts alleged prove that children are infected by their nurses, but he does believe that facts show a sufficient degree of probability of such infection as to render it important for physicians to caution the laity about allowing children of a tender age to come into too close or frequent contact with nurses or others who are tubercular.—*Bost. Med. and Surg. Jour.*, April 29, 1886.

Cohen (J. S.) on Direct Infection of Tissue by Tubercle.—A case of tuberculosis pulmonum et laryngis, now under my care, has so well exemplified the direct transport of the infectious principle of tubercle from one surface to another, that no excuse is necessary for placing it on record. A man forty-two years of age, who has led an exposed life on the Atlantic coast of the Eastern States, but who claims that his family history has been good, is suffering with typical chronic tuberculosis of the lungs, larynx, and other organs. The larynx shows great infiltration of the epiglottis, greater infiltration of the peri-arytenoid and perisupra-arytenoid structures, with thickening in the anterior and middle portions of the ventricular bands, of the vocal bands, and most likely of subglottic tissues also which cannot be brought under illumination. Aphonia, long present, is due to infiltrating tumefaction preventing approximation of the vocal bands. No ulcerated points can be detected laryngoscopically. On the margin of the edentulous gum of the upper jaw of this patient, and extending across the sulcus between gum and upper lip, is a characteristic tuberculous ulceration, and on those portions of the lip which lie in contact therewith are numerous points of recent nodular tubercular infiltration, evidently from direct infection.—*Med. News*, Sept. 11, 1886.

Fitz (R. H.) on Perforating Inflammation of the Vermiform Appendix;

with Special Reference to its Early Diagnosis and Treatment.—The vital importance of the early recognition of perforating appendicitis is unmistakable.

Its diagnosis, in most cases, is comparatively easy.

Its eventual treatment by laparotomy is generally indispensable.

Urgent symptoms demand immediate exposure of the perforated appendix, after recovery from the shock, and its treatment according to surgical principles.

If delay seems warranted, the resulting abscess, as a rule intraperitoneal, should be incised as soon as it becomes evident. This is usually on the third day after the appearance of the first characteristic symptom of the disease.—*Am. Jour. Med. Sci.*, Oct., 1886.

Lilley (G. H.) on a Case of Emphysematous Abscess of Thigh from Intestinal Injury.—J. B., male, aged 54, was admitted August 30, 1883, with crepitating swelling, involving the subcutaneous areolar tissue of nearly the whole of the front of abdomen, extending to chest and back, and to inner side of both thighs. He stated he had been swollen for some time, but he did not think it worth noticing, until it caused personal inconvenience. I ascertained that, about five years before admission, he was struck upon the left groin by a heavy piece of falling timber, and that, on January 17, 1882, he discovered that he was ruptured on the left side. An ordinary truss for oblique inguinal hernia was supplied. He remained in hospital until October 5, 1883, when a flannel roller was applied to his chest and abdomen, etc., and he was put to light work,—emphysema at the time being confined only to lower abdominal region, and slightly to thighs. He was periodically examined till October 7, 1884, when it was found that there was present a considerable degree of inflammation of inner side of left thigh. From the man's account, the redness developed "in a few hours." I painted a broad band of demarcation with nitrate of silver above and below area of inflammatory redness, and poulticed the limb. On the 11th of October an abscess burst on outer side of thigh, and about five ounces of most offensive pus escaped. A few hours afterwards an opening formed at middle of front of thigh, through which five or six ounces of fæcal fluid were evacuated. I syringed well with carbolic-acid

lotion (1 in 20) through the openings, and made a counter-opening, inserting a carbolized rubber drainage-tube. The wounds were dressed antiseptically, under steam spray. An opiate gave a fairly good night's rest. On the following day a large slough detached from inner side of Scarpa's triangle, followed by the escape of four ounces of fæcal fluid. On the 13th the discharge from all the openings was less offensive, and tenderness of limb diminished. After well syringing as before, I applied dressings of boracic acid and vaseline on boric lint. On the 15th there was marked improvement, although some bagging was present above the knee. By well bandaging the knee, and elevating the limb, free drainage removed the bagging. On the 16th I removed the rubber tube and syringed well with carbolic-acid lotion (1 in 40), the sinuses looking healthy. On 17th diarrhœa set in. On 20th, diarrhœa continuing, a circumscribed blush appeared on inner side of thigh. Argent. nit. was again employed, and the redness encircled. On the 26th an abscess burst at this spot, the pus being only slightly offensive. I again syringed with the stronger solution of carbolic acid. Diarrhœa appeared to resist all treatment till the 31st of October, when it ceased. On November 2d the wounds had all closed. On November 25th I discharged him from hospital; all emphysema was gone, and walking caused no pain or inconvenience. He was transferred on this date to a milder climate, with a gain in weight of twenty pounds during the seven weeks he was under treatment in hospital.—*Bristol Med.-Chir. Jour.*, Sept., 1886.

Atkin (C.) on "Malignant" Refusal to Heal.—E. S., æt. forty-four, a moulder, married, healthy children, denies syphilis or any previous complaints. His father died of cancer of the stomach, his mother at sixty-two (?) of old age. Four years ago he cut the ball of the left thumb with a casting, and immediately went off to the public hospital in this town, where he was allowed to remain for five days. On going out he consulted his own medical man, as the wound was then "mattering and festering." Ointments and poultices were applied. Five months after he returned to the hospital, the arm riddled with abscesses, and the fingers firmly contracted into the palm. He remained there for about five months, but went out when amputation was

suggested. He then got into the hands of "quacks," and finally returned to the hospital two years after to have the arm removed. Amputation was performed above the elbow-joint; he remained in a month, and then went out with the stump partly healed. Abscesses forming in the armpit, he again resorted to irregular practitioners. Five months after the amputation he first applied at the infirmary, when the following was the condition noted: Patient is thin, sallow, hair iron-gray (by no means prematurely grey), no apparent anæmia, cachexia, or hectic. The stump of the left arm is partly healed and partly covered with large unhealthy-looking granulations. The arm above is riddled with sinuses mostly intercommunicating, but none of them leading down to dead bone. The suppurating surfaces are bright-red and smooth, exuding a light-green, slimy pus, though granulations are apparently absent. For some weeks quinine and iron, good food, and stimulants were liberally plied. The urine was examined and found normal. The vital organs revealed no disease after careful and repeated examination. Six months after the amputation above the elbow-joint, the whole arm was removed at the shoulder by Mr. Favell, under antiseptic precautions. Hardly any blood was lost, and for the first two dressings every thing seemed to be going on well, except that the discharges were rather profuse. The temperature hardly rose above the normal, and from the appearance of the wound edges union by first intention seemed to have taken place. The sutures (silk) were left in for ten days. At the end of the fortnight, the deltoid flap hung loosely over the divided axilla without the slightest trace of plastic lymph being present. Owing to the profuseness of the discharge, the stump required daily dressing, and for the first time then the temperature began to show nocturnal exacerbations. There was no pain or inconvenience; sleeplessness alone was complained of. Alteratives, tonics, and stimulants were in turn resorted to, and all sorts of local applications, soothing, astringent, antiseptic, and irritative were tried, discarded, and repeated. The patient otherwise feeling well, with a good appetite, was walked about in the fresh air, with the stump firmly strapped and bandaged, and every tendency to so-called "hospitalism" was avoided. Two months after the operation, the temperature having

risen to 102° , a large abscess was opened under the posterior scapular muscles, affording the patient great relief. The note made at this time is as follows: "The edges of the shoulder flap are quite incurved, neither reddened nor thickened. There is no sign of inflammation about the wound. On peeping under the overhanging flap, the suppurating surface reminds one of the cavity of an empyema as sometimes seen after death—a pale-pink surface, with cream-like adherent slime, no bleeding papillæ, in fact not even a granulation point is visible. He shrinks visibly on being syringed, though otherwise there is no pain or tenderness. Pus is evidently burrowing under the pectorals as far as the left nipple and under the latissimus dorsi. Pressure over these parts causes the discharge of a thin, watery pus."

Death took place from exhaustion exactly four months after the amputation at the shoulder-joint. The following is a brief record of the autopsy: "All the left half of the thorax, part of the right, the root of the neck, left armpit, and prominence of the left shoulder are completely denuded of skin and cellular tissue. The muscles are very much thinned and wasted, showing the bones, vessels, and nerves in strong relief. The glenoid cavity lies quite exposed, white and bare, the cartilage intact, no ulceration of the bone edges being visible. There are no marks, sores, or enlarged glands in any other portion of the body. The lungs, brain, and spleen healthy. Liver and kidneys slightly fatty, but not amyloid. Suprarenals markedly enlarged and thickened. Heart small and healthy, excepting two small recent vegetations, one on a flap of the aortic valves, and one on the anterior flap of the mitral; they are so small and friable, that it is doubtful whether they could have caused any cardiac disturbance."

Here is a case which, in spite of all treatment, steadily and persistently refused to heal. Reparative power seemed to be quite in abeyance. A process of molecular disintegration of connective tissue and muscle ensued without the usual accompanying inflammatory process. The skin was never primarily ulcerated or inflamed, but came away in sloughs when its subjacent bapulum supplier was destroyed. This sparing of epiblastic tissue in the liquefying process is noteworthy.

At first sight it might be imagined that

the case could easily be relegated to that ill-defined group which has been described under such headings as "adult struma," "latent or senile scrofula," etc., but I would draw attention to the complete absence of any bone or gland affection in either himself or in any member of his family, and to the fact that "tubercles" or "caseous matter" were not found in either the lungs, brain, or mesenteric glands. Again, strumous patients are often characterized by the rapidity with which their operation-wounds heal after removal of the offending member, and should perchance tuberculous sinuses remain, scraping, iodoform, and pressure are generally effectual.

The usual causes of tardy healing were wanting, such as a callous condition of the tissues, or inflammatory sloughing, induced by local causes or constitutional diseases. Renal and intestinal mischief were absent, and habitual intemperance was denied. Small and large doses of iodide of potassium were given at various times, taking into consideration that syphilis is often complicated by untruthfulness. I remember, as a student, seeing a lithotomy wound which had for a long time refused to heal, close up rapidly on the administration of mercurials given as a *dernier ressort*, showing the presence of syphilis or some other susceptible dyscrasia. The recollection of this and similar unexplained obstinate cases suggested the employment of the "universal resolver," but all in vain.

Old age has been conclusively shown by Prof. Humphry and others to be in no way obnoxious to healing. The patient under consideration was only 44, and exhibited no abnormal signs of age, such as "arcus senilis," or rigid arteries, nor had he, according to his own account, "lived too fast."

If "malignancy" be a term used to denote a peculiar condition of tissues which fail to heal after operation, and tend to recur, then surely the above case was "malignant." If "new growth" be necessary for "malignancy," then we must look elsewhere, as exactly the opposite condition was present, namely, disintegration and decay—in fact, the term "phthisis" would be more applicable. Carcinoma and sarcoma cells were repeatedly sought for in the tissues and discharges, both before and after death. Thus the case differs entirely from "traumatic malignancy" or sarcomatosis," a typical case of which was recorded by me

in the *Medical Chronicle* at the beginning of this year. Sarcomatosis, or "granuloma," means that new formation resembling granulation tissue is in excess. To support the sarcomatous view of the case I have recorded, one must imagine a condition where the cells, themselves very rudimentary, have not sufficient vitality to form even an elementary tissue, but are so vitiated that they are thrown off in the form of corpuscular lymph, or pus, as soon as they are formed.—*Med. Press and Circ.*, Sept. 15, 1886.

Chazeaux on Urethritis Without Gonococcus among Rheumatics.—After narrating two cases in detail, the author concludes :

1st. That there occurs among rheumatics a virulent urethritis where the gonococci are wanting.

2d. That it is characterized by a purulent urethral discharge and other symptoms of blennorrhagia.

3d. That the entire absence of gonococci is the only positive point in differential diagnosis.

4th. That in the four published cases orchitis and epididymitis were wanting.

5th. That the rheumatic diathesis can of itself produce this disease; contagion or an inflicting organism being wanting.—*Lyon Medical*, Aug., 1886.

Maguire (R.) on Albuminuria in Diabetes.—Recently, in a case of diabetic coma, I analyzed the albumen which was present in the urine, and found that it consisted of two and one half parts of serum-albumen to one part of serum-globulin, a proportion which I have observed to be a common one in severe organic lesions of the kidneys.

The relation of this albuminuria, and its accompanying kidney-change, to the diabetic coma, is of great importance, but uncertain. The coma is certainly not uræmic coma, but all the latter researches prove that it is due to the circulation of some poisonous matter in the blood, whether this be acetone, aceto-acetic acid, or oxybutyric acid. Two possibilities seem open: one is that the poisonous matter in the blood irritates the kidneys, and so produces the change in the epithelial cells, which change is quite analogous, as far as the convoluted tubes are concerned, to that produced by a large dose of cantharides. In support of this, it should be noted that, in the experiments in which attempts have been made

to produce diabetic coma by injecting into the blood the various substances mentioned above, albumen has occasionally appeared in the urine. The other possibility is that something more than the presence of the poisonous matter in the blood is necessary to produce coma. It may be that this further determining influence is the epithelial change in the kidney, the sign of which is the albuminuria described. It will be remembered in this connection that, in the researches hitherto published, the complete symptomatology of diabetic coma as seen in man has not been produced in animals, by the injection of any poisonous matter into the blood, so long as the kidneys have been intact.

In *post-mortem* examinations made in long-standing cases of diabetes, it is common to find the kidneys hard and tough; and, when examined microscopically, they show an overgrowth of the interstitial tissue round the vessels and glomeruli and between the tubules. The capsule of the kidney may be slightly adherent; but it is rare to find a condition which could be called granular kidney. Doubtless, this interstitial overgrowth has for its cause the irritation of the kidney by continuous overwork.—*Br. Med. Jour.*, Sept. 18, 1886.

Veeder (M. A.) on Possible Extension of Malarial Disorders by Means of Water-Supply.—In a town of considerable size, which shall be nameless, the inhabitants years ago were, as a rule, entirely free from malarial diseases, except along the banks of the adjacent river. During the writer's acquaintance with this town, which was extensive and of long standing, he never heard of these diseases prevailing except in the immediate vicinity of the stream in question. Some years since a system of water-works was introduced, taking the water from this river, whose surroundings were positively and unquestionably malarial. Soon intermittent fevers and allied disorders began to prevail throughout the town, and have not ceased so to do every year subsequently. Where once they were practically unknown they now are very common. It is as if the inhabitants all lived close to the banks of the stream. They have not gone down to the river, but the river has come up to them. Whether it is the use of such water for drinking purposes, or the saturation of the soil in various ways by its means, that may

be presumed to extend these diseases, is to the writer as yet unknown.—*N. Y. Med. Record*, Sept. 18, 1886.

Adams (Z. B.) on an Epidemic of Malaria in Eastern Massachusetts.—In conclusion, the author says: "*First*, that water is almost certain to prove to be its habitat, and the vehicle by which this microbe enters the human organism; *Second*, that by new methods of investigation its life-history may be studied; and *Third*, these two points being gained, that it is possible to attack the free germ, or prevent its admission to the body and thus the disease may be checked.—*Bost. Med. and Surg. Jour.*, August 26, and Sept. 2, 1886.

Finlay (C.) on Yellow Fever: its Transmission by Means of the Culex Mosquito.—While yellow fever is incapable of propagation by its own unaided efforts, it may be artificially communicated by inoculation, and only becomes epidemic when such inoculations can be verified by some external natural agent, such as the mosquito.

The history and etiology of yellow fever exclude from our consideration, as possible agents of transmission, other blood-sucking insects, such as fleas, etc., the habits and geographical distribution of which in no wise agree with the course of that disease; whereas, a careful study of the habits and natural history of the mosquito shows a remarkable agreement with the circumstances that favor or impede the transmission of yellow fever. So far as my information goes, this disease seems incapable of propagation wherever tropical mosquitoes do not or are not likely to exist, ceasing to be epidemic at the same limits of temperature and altitude which are incompatible with the functional activity of those insects; while, on the other hand, it spreads readily wherever they abound. From these considerations, taken in connection with my successful attempts in producing experimental yellow fever by means of the mosquito's sting, it is to be inferred that these insects are the habitual agents of its transmission. It cannot be denied, however, that other such agents may and probably do occasionally occur, but not being endowed with the same facilities for rapid and extensive operation, their influence becomes insignificant as compared with the action of the Cuban culex.—*Am. Jour. Med. Sci.*, Oct., 1886.

Hinde (A.) on a Study of Herpes Zoster Frontalis seu Ophthalmicus.

—The phenomena of herpes zoster frontalis are dependent upon, and the result of, the neuralgic disease of the ophthalmic division of the fifth cranial nerve. The essential condition is one of asthenia of the nervous tissues involved. There is no definite or constant anatomical change in the affected nerves. In the great majority of instances the disease is of central origin, but in a few cases it appears to be of peripheral origin and extent. The associated cutaneous and ocular inflammations are secondary to the neuralgic disease, and appear subsequently to the onset of the same. These dependent inflammations are due to vaso-motor paralysis on account of palsy of the sympathetic, or due to the influence of a special set of trophic fibres embodied in the trigeminus. The extent and severity of the inflammations are in direct relation to the severity, extent, and persistence of the neuralgia; thus we may have any degree of increased vascularity or inflammation—from simple hyperæmia to complete destruction of tissue.

The essential treatment of the disease is that of the neuralgic state. In the instances of central origin local surgical interference is contra-indicated, but in the fewer cases of peripheral origin and limited extent, excision of the affected nerve-branches is advisable. The ocular inflammation is serious in character, with a special tendency to increased intra-ocular tension and the glaucomatous state. On this account eserine would appear to be the remedy *par excellence*.

The disease, though almost invariably occurring but once in a lifetime, and also, almost invariably, accurately limited by the median line of the body, may, in very rare and exceptional instances, not only transgress for a short distance the median line, but also occur more than once in the same individual.

It is a disease occurring with greatest frequency and most severity in the latter half of life. It is a disease important, not only on account of the destructive ocular inflammation, the severe and often prolonged suffering, but also on account of the risk to the life of the aged patient. It occurs more frequently than is generally supposed. It is often misnamed, and hence overlooked.—*N. Y. Med Record*, Sept. 11, 1886.

Ribbing (S.) on Traumatic Pleurisy.

—In the Swedish *Eira*, amongst a number of instructive cases the author reports the following one of traumatic pleurisy. A man, who had received a blow on the right side of the thorax in a drunken quarrel, was admitted into the Cimbrishamn's Hospital with the ordinary signs of pleurisy with effusion. The cavity was consequently aspirated, the puncture being made in the eighth intercostal space just below the angle of the scapula. The signs of fluid returning, it was decided to open up the cavity. This was done by an incision in the same situation as that in which the aspiration had been performed, and a quantity of thick fibrino-purulent matter evacuated, a large French œsophageal sound being used for drainage. Two days after the operation it was noticed that the integuments and superficial muscular layer around the shoulder-joint flapped like a curtain at each inspiration. As this pointed to the existence of an abscess cavity communicating with the chest, a sinus was searched for and discovered running upwards from near where the opening into the thoracic cavity had been made. This sinus was laid open, and, together with the chest, carefully drained and washed out with carbolized water. The quantity of fluid which came away diminished daily; the temperature, which had been high, sank; and in three months' time the man was discharged cured.—*Lancet*, Sept. 18, 1886.

How to Preserve the Dead Body.

—Dr. H. Speier, of Duluth, Minn., writes: "In reply to the inquiry of Dr. Kennedy in *The Record* of August 7th, I will briefly give him the method for preserving bodies invented a few years ago by Wickersheim, of the Anatomical Museum of Berlin. The process is simple and cheap, and the inventor claims that by it the color, form, and flexibility of dead animal bodies and all their tissues are completely preserved. He says that after several years sections for scientific or legal purposes can be made, decomposition and even foul odor being entirely absent. The preserving fluid is made as follows: Take 3,000 3 of boiling water, dissolve in it 100 3 of alum, 25 3 common salt, 12 3 saltpetre, 60 3 potash, and 10 3 arsenious acid. After cooling, filter the solution. To 10 litres of this neutral, colorless, and odorless fluid add 4 litres of glycerine and 1 litre of

methyI-alcohol. Inject the body with the preserving fluid, then immerse it in the same for a few days. Rub and dry the body, envelop it in a sheet soaked in the same fluid, and place in an air-tight receptacle.—*N. Y. Med. Record*, Sept. 11, 1886.

DISEASES OF WOMEN.

Cheron (J.) on Iodoform Collodion in Gynæcology.—In a case of pelvic peritonitis following a cervical endometritis with ulceration, the author employed a five-per-cent. solution of iodoform in collodion. The pain, which was acute, disappeared almost at once. One repetition of the application only was necessary.

Later experiments have shown him that flexile collodion is more useful.—*Rev. de Thérap.*, Oct. 1, 1886.

Wyman (H. C.) on Dry Chloride of Sodium in the Treatment of Subinvolution of the Uterus.—The various plastic operations upon the uterine cervix which have been recommended by authorities, I have found sufficient to compass a cure in the large majority of cases; but in those cases where for any reason operative surgical measures are withdrawn advisably, I have found the treatment by dry applications of sodium chloride to the swollen cervix most satisfactory. It has been in use, in my practice for more than two years, and the success which has attended its use where I have applied it myself or directed its use in consultation, has been most pleasing.

The formula I use is this :

R	Chloride of sodium	℥j.
	Powd. slippery elm-bark . .	℥iij
	Powd. hyoscyamus leaves . .	℥j.

Mix and rub in a hot and dry mortar until thoroughly desiccated.

This is applied to a diseased cervix uteri in quantities equal to an ordinary teaspoonful once every other day, and sometimes oftener.

My common plan is to take a piece of absorbent cotton, circular, and three inches in diameter, just thick enough to hold the powder placed inside. The edges of the cotton are then folded over the powder and tied with a string, which is left of a length suitable to facilitate the withdrawal of the tampon, thus made, from the vagina. This insures the contact of the dry salt with the diseased uterus pretty nearly, al-

though a thin layer of absorbent cotton intervenes between the salt to be dissolved and the uterus to provide the fluid for dissolving it. In case the application proves painful, the tampon is withdrawn, and another replaced containing a larger quantity of hyoscyamus, or opium, or morphine, as I may think best adapted to the case. To apply the chloride of sodium prepared in the manner just described, a speculum is first introduced and the swollen cervix brought into view and proper position, then that end of the cotton tampon which contains the chloride of sodium, etc., is passed through the speculum and placed against the cervix. It is held in position with dressing forceps while the speculum is withdrawn. The tufted end of the tampon insures its contact with the cervix after the forceps are released.

The principle on which the influence of this remedy depends is found in : (a) The depletion of the uterus of its fluid to liquefy the chloride of sodium. (b) The antiseptic properties of the salt checking and preventing putrefactive and fermentative changes in the vagina and uterus. (c) The presence of a mechanical support for the enlarged and malposed uterus favoring better circulation of blood through that organ.

In occasional cases I have observed that the patient did poorly when cotton was used to hold the powder in position; it appearing that the mere presence of the cotton, adding to the bulk of the foreign body in the vagina, was cause sufficient to make the patient listless and decline in health. In such cases I have introduced a small Ferguson speculum, brought the uterus into position, and thrown a teaspoonful of the powder directly upon the diseased organ. To relieve pain, I have added opium powder, hyoscyamus powder, or belladonna powder, to the salt and slippery elm.—*The Med. Age*, Oct. 25, 1886.

Bridgeman (N. S.) and Miley (I.) on Belladonna in Sterility.—Dr. Bridgeman has been in the habit for years of prescribing a combination of nux. vom. and belladonna in painful affections of the uterus and ovaries, and has noticed that it is almost a rule among married women that such cases soon become pregnant. He has been convinced for several years that it was not accidental, but that the drugs had something to do in bringing about the result.

In 1875, Mrs. H. applied to Dr. Miley for relief from neuralgia of the uterus and ovaries.

He prepared her fifty pills, containing one eighth gr. each of ext. belladonna, hyoscyamus, and nux vomica, and directed a pill before meals; and although she had been married three years without a conception, she soon conceived and bore a son, and remains free from neuralgia to the present time.

In 1877, Mrs. W., who had been married fourteen years without conception, applied to me, complaining of sick headache, neuralgic pains, and constipation.

He prepared and gave her the same medicine as above; she, too, soon conceived and bore a son.

In 1880, Mrs. W., colored, applied for relief of amenorrhœa and sterility.

He gave her the same medicine as above, and as she and her husband were both anxious to have an heir, he directed that she take a vaginal injection of a weak solution of baking soda at night. She soon conceived, but miscarried at the seventh month, but has borne other children, who are now living.—*Cincinnati Lancet-Clinic*, Oct. 9 and 30, 1886.

Slocum (H. A.) on the Use of Boracic Acid with Vaginal Tampons.—Comparing boracic acid with other agents, I have not found one which so completely fulfils its office, without offering objectionable features of its own. With very free or unpleasant discharges, a proportionately larger amount of powder must be used.

Whether it affects the vaginal tissues advantageously or otherwise, I am not prepared at present to say, though I have frequently noticed after its use, and when that which remained from the old packing had been removed with a piece of wet cotton, that the vagina was much paler than when the tampon was introduced. If, by repeated trials, this observation can be proved correct and constant, it may reasonably form the basis for a series of experiments in the treatment of vaginitis. That the paleness just mentioned is not entirely due to the mere pressure of the cotton, seems evident from the fact that simple cotton tampons are frequently tinged with blood on their surface, although carefully placed and not tightly packed.—*Med. News*, Oct. 23, 1886.

Hatchett (F.) on Primary Operation for Torn Perineum After Emmet's Method.—The patient, a primipara, was confined July 26, 1886. Perineum ruptured, the laceration, externally, extending to the sphincter ani muscle; internally the tear extended along both sides of the posterior column of the vagina to the extent of an inch and a half. The stitches were introduced on each side of the column according to Emmet's directions, and the rest of the tear was united by three deep stitches knotted externally.

On the twelfth day the stitches were removed, union perfect. There was no deformity of the parts whatever. The case is interesting because the primary tear corresponded to the denudation made by Emmet, as represented in his diagram, in performing the secondary operation.—*Med. News*, Sept. 25, 1886.

On the twelfth day the stitches were removed, union perfect. There was no deformity of the parts whatever. The case is interesting because the primary tear corresponded to the denudation made by Emmet, as represented in his diagram, in performing the secondary operation.—*Med. News*, Sept. 25, 1886.

BOOK NOTICE.

The Physician's Visiting List.—By Lindsay & Blakiston, Phila., Pa.

The several essential qualities which a good visiting list should possess are, compactness, convenience of arrangement, and strength to resist the unusual hard wear it receives. These qualities are all combined in Lindsay & Blakiston's Physician's Visiting List, which has now been published for thirty-six years. It is the most convenient for the pocket. Its contents are arranged in the most advantageous way, including a Calendar, Table of Signs, List of Poisons and Antidotes, Dose Tables, rewritten in accordance with the Sixth Revision of the U. S. Pharmacopœia, Marshall Hall's Ready Method in Asphyxia, Lists of New Remedies, Sylvester's Method for Producing Artificial Respiration, with illustrations; Diagram for Diagnosing Diseases of the Heart and Lungs; explanation of the Metric System, explaining the difference between it and the present system of weights and measures; a new table for calculating the Period of Utero-Gestation, and the following New Features which have been suggested by experience and by those who have used the list many years: Disinfectants and Disinfecting; Examination of Urine, prepared by Justin Daland, based upon Prof. Jas. Tyson's "Handbook for Practical Examination of Urine"; List of Standard Reference Books; Incompatibles; and a Cash Account.

No better evidence of the practical worth of this book can be offered than the uniform popularity it has enjoyed, notwithstanding the competition of various imitations published during the past few years.

PUBLISHERS' NOTES.

Lactopeptine.—In cholera infantum, in diarrhœa, and in all of the disturbances of the alimentary canal, during dentition and early infant life, I find Lactopeptine an ever-effective and reliable remedy. In

adult dyspepsia, all are now familiar with its beneficial effects; but I should be glad if the profession would be induced to try it in the vomitings, diarrhœas, and dyspepsias of infancy. I recall several babies whose lives I believe I could have saved had I known, ten years ago, what I do now of the ready adaptability of Lactopeptine to infants' ailments.

R. WALKER BEERS, M. D.,
In the *Medical Brief*. Angola, La.
Lactated Food—

39 West 36th St., NEW YORK, }
April 8, 1886. }

Wells & Richardson Co.:

Gentlemen:—Thanks for your Physicians' Almanac. I am sure it will be useful for just what you intend it for, and the dietetic notes meet with my hearty endorsement. I have been intending for a long time to write you in reference to your Lactated Food, which I have been prescribing for a year (since you sent me sample package), and find it invaluable in many cases of old age and small children. I am using it in all debilitating diseases, pneumonia, etc., with the most gratifying success.

Respectfully,

ARTHUR T. HILLS, M. D.

Horsford's Acid Phosphate.—Dr. T. F. Breck, Springfield, Mass., says: "I consider Horsford's Acid Phosphate very superior in diseases pertaining to the nervous system, and am very much pleased with results."

Peacock's Bromides.—I have used Peacock's Bromides with good results in my practice. I believe it to be a valuable addition to *Materia Medica*, and when once its use is fairly understood no physician will be without it.

E. K. BAILEY, M. D.,
Shenandoah, Ia.

Colden's Liquid Beef.—I regard "Colden's Liquid Beef Tonic" as extremely useful in cases of debility and general depression, and as an article of food containing tonic properties it is highly useful.

A. JACKSON, M. D.,
Professor Laval University,
Quebec.

Phillips' Emulsion of Cod-Liver Oil.—The old house of Chas. H. Phillips (established 1849) has always been noted for the originality and elegance of its productions. Their Milk of Magnesia and their preparation of the Acid Wheat Phos-

phates attest this—the former differing widely from the ordinary preparations of magnesia, and presenting an effective antacid free from objectionable features; the latter supplying, in concentrated form, the phosphates of which our daily bread is deficient.

Celerina, Acid Mannate, etc.—Our readers' attention is called to the above excellent preparations manufactured by The Rio Chemical Co., of St. Louis, Mo. See their advertisement on another page.

From the "Massachusetts Eclectic Medical Journal."—Scott & Bowne, manufacturing chemists, of New York, make a specialty of producing an Emulsion of Cod-Liver Oil with Hypophosphites. Their great care in selecting the oil and in making the combination is amply proved by the high therapeutical value set upon the Emulsion by the profession. It is no new remedy, but has been steadily growing in demand for a number of years. In cases of scrofulous children it acts almost as a specific. They also offer a Buckthorn Cordial which is highly useful in the treatment of constipation. We can speak from experience of the merit of both preparations.

Viburnum Compound.—This is described as an invaluable remedy for dysmenorrhœa and menorrhagia, and has been recognized as such by a very large number of the leading physicians of America; send for hand-book, mentioning ANALECTIC.

Crust Pepsin.—This new pharmaceutical preparation, although but a short time before the profession, has made for itself an enviable reputation. Send for particulars to Wm. F. Kidder & Co., New York.

Iron Alum Mass.—I believe the "Seven Springs Iron Alum Mass" to be the best remedy we have for diseases peculiar to females and uterine complaints.

GEO. M. D. PATTERSON; M. D.,
Englewood, Tex.

Pinus Canadensis—Gonorrhœa and Granular Ulcerations.—I have used Kennedy's Pinus Canadensis in gonorrhœa most successfully. I am now treating cases of chronic cervical endometritis with granular ulcerations, and think it particularly indicated there. It was in such practice, I believe, which elicited Sims' encomiums of its merits.

T. N. CLARK, M. D.,
Reagan, Tex.

THE MEDICAL ANALECTIC

A
MONTHLY EPITOME OF PROGRESS IN ALL DIVISIONS OF
MEDICO-CHIRURGICAL PRACTICE

EDITED BY
R. W. AMIDON, M.D.

VOL. III., No. 12.

December, 1886.

WHOLE No. 36

LEADING ARTICLES.

Pharmacists and Druggists.—Relations between manufacturing pharmacists and druggists have of late become somewhat strained. On the merits of the question physicians, as often happens, differ. A prominent place in our last issue was given to the opinions¹ of a champion of the druggists. Although opposed, as a rule, to the introduction of controversial matter, in a spirit of fairness an equally prominent place is now given to opinions of a champion of the former class.

Dr. William B. Hazard, in an article entitled "Shall Druggists Dictate to Physicians What Medicines They Shall Prescribe?"² takes issue with the editor of the *Journal of the American Medical Association* as to the status of pharmaceutical preparations. The brand which kindled this fire seems to have been the following resolution passed at the last annual meeting of the American Pharmaceutical Association :

"*Resolved*, That this Association solicit the aid and coöperation of the American Medical Association, in promoting the prescribing by physicians of officinal medicines only, or such preparations as have published formulæ, in preference to others ; and that the several State Pharmaceutical Associations make similar requests of their respective State Associations."

In indorsing this resolution the editor of the *Journal of the Amer. Med. Ass'n* says, among other things :

"If the physician prescribes a medicine of any particular drug manufacturer's preparation instead of the standard article as given in the Pharmacopœia, he lessens the

value of his clinical results for comparison with those obtained by others ; and if he prescribes the compounds of this drug house or that, he fosters the injurious habit of prescribing compounds without carefully adjusting the relative proportion of each ingredient to the condition of the individual patient, and greatly neglects the study of the therapeutic action and value of every drug he uses."

To this the writer in the *Brief* makes the following very apropos retort :

"If the 'adjusting' of the dose of each ingredient to 'the condition of the individual patient' cannot be done with Blank's iron mixture, then it cannot be done with the 'officinal' Compound Extract of Colocynth, or the U. S. P. Compound Cathartic Pill, and a dozen other similar preparations. The same remarks apply equally to most of the so-called 'unofficinal medicines and preparations.'"

"It looks like a remarkable exhibition of impudence for the national convention of druggists to attempt to restrict physicians in their choice of drugs. They do not object to Smith, of Podunk, because they dare not openly do so ; but their petition to the physicians means, when read between the lines, something like this : Please pass a law among yourselves that none of you shall dare prescribe A's, or B's, or C's, or any other reliable manufacturer's goods ; let us give you opium that has been deprived of its morphine, ergot that is worm-eaten and inert, and chloral that has never been purified ; let us give your patients whatever we can buy cheapest and off which we can make the most profit. Give *us* the management of *your* reputations. We already prescribe across the counter more than you do in your offices ; we always insist that an 'ague cure' or a 'cough syrup' is better than any doctor's prescription ; now let us dictate *what* you shall

¹ "The Patent Medicine Evil." Being editorial comments taken from the *Pacific Record of Med. and Phar.*, Oct. 15, 1886.

² *The Medical Brief*, Dec., 1886, p. 502.

prescribe, and we shall do what little professional work we heretofore have permitted you to do!

"If the pharmacists would keep nothing in their shops but efficient drugs and medicines, there might be some idea of fairness and honesty in this petition to the medical profession to prescribe such articles only. If there were any reasonable guaranty that such articles as they are in the habit of dispensing would correspond in purity and strength with the requirements of the U. S. Pharmacopœia, the case would be still stronger. But what are the facts in this relation? Who dispenses the secret nostrums, the cure-alls, the frauds and impostures sold under the pretence that they are fit for use by man? It is the druggist. He it is who distributes patent medicine almanacs, circulars, etc., by the million annually. He it is who advises the use of such things in place of the 'official' preparations prescribed by the physician. Who dispenses opium deprived of its morphine; cinnamon the oil of which has been removed by distillation; drugs damaged by undue moisture, or too prolonged keeping; carbolic acid for creasote; cinchonia and cinchonidia for quinine, and numberless other sophistications and substitutions? Every one knows that it is *not* the physicians who do these things, but the disreputable among the druggists.

"It is a well-known fact that there are druggists in every large city who are not to be trusted with the filling of a prescription that calls for any expensive drug. They come and go, so that at last physicians are compelled to designate certain of the drug fraternity as trustworthy, and insist upon their patients going to those alone for their medical supplies. If they fail to do this, their work is thrown away and their reputations go with the failure of their remedies in critical cases.

"Extensive experience has demonstrated to the practitioner that the only way he can secure 'remedies of officinally recognized strength and purity' is to prescribe preparations made by 'this drug-house and that' which he has learned to be trustworthy. This is particularly true of expensive drugs.

"A very effective method of reforming the average 'honest pharmacist' would be for every physician to buy supplies directly from manufacturing chemists, and dispense with the services of the corner

druggist by dispensing all medicines to his patients direct. The country practitioner does this from necessity, and in some of the larger cities the practice is gaining ground. The homœopathic fraternity have long experienced the benefits of this mode of procedure. Physicians of every school and system may learn a valuable lesson from them in this regard."

As this is the "innings" for the manufacturer it cannot better be closed than by words uttered at the opening of the Pharmaceutical Department of the University of Buffalo Sept. 20, 1886 by Clay W. Holmes.¹

"Look at the pharmacist, armed with all the implements and skill necessary to conduct his business intelligently and successfully, and then see the druggist, who, without education or ability, lays claim to the pharmacist's mantle, but only barter in drugs and drinks. A picture of the latter is so graphically sketched by a Boston orator that I quote: 'What an incongruous mixture the modern "Pharmacy" is, and judge how well your wants are supplied by it. It has the corner store of the last built marble block, and fronts upon the square. Its front and side are continuous walls of plate glass, the signs of etched glass. There is an inlaid mortar in the sidewalk, and an enormous one hangs over it. It illuminates the whole square at night with its many colored lights. As you enter, a hissing sound like that of an overcharged boiler comes from a magnificent monumental cathedral of variegated marble standing before you, almost hiding the view of the room. A female figure beneath a bell is being mercilessly washed, while tumblers are waltzing in a basin near by. Passing this the room stretches magnificently into the distance, the marble counters on either side; the crystal chandeliers above can almost be seen reflected in the polished marble floor. An inlaid walnut case covers the partition side, and is filled from end to end with gilded bottles standing like soldiers at dress parade. A little screen at the further end is marked "dispensing counter," a door near by, labelled in large letters "laboratory," opens into a closet. In one window temperance bitters and bilious cordials form a sort of pyramid. In another an official

¹ "The Nobility of Pharmacy as a Profession," *Medical Press*, of Western New York, Nov., 1886, p. 641.

display is made with jars of ginger, cardamom, and rhubarb; and innocently mingled with them a few bottles of well-known liquors suggest that these are medicines as well as any, for the urbane proprietor has paid all the licenses without grumbling. Another window is devoted to soaps and perfumery, and holds a glass sign, "orders for cleaning kid gloves received here." The window counter contains cigars, with various smokers, conveniences; another an assortment of toilet articles, including pocket flasks. There is an anxious father waiting here with a recipe for his dear ones at home, while some sociable ladies finish their soda, and a fastidious young man's taste in cigars is satisfied, before his pressing needs can be attended to, etc.

"Was this a junk-shop or a pharmacy?"

**Dudley (W. L.) and Castle (C. H.)
on the Production of Catharsis by
Means of Hypodermatic Medication.**

—It is often necessary to produce catharsis with the least possible loss of time. It is also frequently the case that cathartics cannot be administered *per os*, and that injections per rectum will not accomplish our purpose. In such emergencies, it has been our habit to rely upon croton oil, dropped upon and absorbed by the tongue; but experience will bear us out when we say that croton oil is not always reliable. How then are we to attain our object certainly, expeditiously, and safely? We must seek our reply in an appeal to the hypodermatic syringe and that class of drugs which produce catharsis by their absorption into the circulation, and subsequent action through the nervous system. The list of the latter is of goodly length. We have already employed not a few of them upon the lower animals, and with the most gratifying results. We are not prepared to assert positively that we have found an agent which, when used hypodermatically, will invariably produce catharsis expeditiously and safely, but we believe that further observation—leading to a better knowledge of solubility and dosage—will establish this claim for two or more of the substances with which we have lately been working.

Cathartic acid was first isolated from senna by Dragendorff and Kubly, in 1866, and described by them to be a glucoside, of weak, acid character, having the formula $C_{18}H_{192}N_4O_{82}S$. Cathartin was isolated and

described by Lassaigne and Feneulle, who considered it the active, purgative principle of senna; but it was afterward found to be a mixture having little, if any, purgative properties, and it is now generally admitted that cathartic acid is the active principle of the plant. Cathartic acid has a brown color while moist, and is nearly black when dry. It is an amorphous substance, nearly insoluble in water, and insoluble in ether and alcohol, but readily combines with the alkalies and earths, forming salts soluble in water, which are decomposed by acids with precipitation of the cathartic acid. It may be purified by dialysis, as it has strong colloidal properties.

The cathartic acid used in these experiments was of a dark-brown color, having an odor and taste resembling licorice. It was completely soluble in water, forming a wine-red colored solution. From its chemical and physical properties we were convinced that the preparation was by no means pure, and the results here given are only of value so far as the commercial acid is concerned.

We have used cathartic acid four times upon young kittens. In the first two experiments we injected one third of a grain and one half of a grain, respectively. These kittens were in a poor physical condition when they came to us. The injections made into the subcutaneous tissue of the belly caused no discoverable local irritation. The kittens died in about two days, no catharsis having been produced; but, upon post-mortem examination, the small intestines were found empty and slightly injected, and the colon enormously distended with impacted fæces. In the third experiment we employed one grain of the acid without local irritation or the production of catharsis. In the fourth observation two grains of the acid were used, and in ten hours free catharsis came on. The stools were at first hard; later, soft and clay-colored. This effect continued for several days.

In two instances we used the cathartate of ammonium—giving one grain of the salt. One of the kittens experimented upon died in about thirteen hours, and, as in the case of the other two, the stomach and intestines were found empty and somewhat injected, and the large intestine distended with impacted fæces. Free catharsis was induced in the other kitten in about four hours.

PODOPHYLLOTOXIN.—D. V. Podowisotsky (*Pharm. Zeitschrift für Russland*, 1882, vol. xx., p. 777) found, after careful examination, the root and resin of podophyllum to contain podophyllotoxin as the active purgative principle. This body he described as being composed of a resin acid, picropodophyllic acid, and a neutral crystalline principle which he called picropodophyllin. Podophyllotoxin, when pure, is described as a bitter, white, resinous powder, soluble in weak alcohol and hot water, while that of commerce is a light yellow powder. It is precipitated from its alcoholic solution by water in large quantity. The slight color of the commercial article is probably due to the coloring matter which has been imperfectly separated.

Brunton states that the resin of podophyllum "acts on the bowels when injected subcutaneously, as well as when introduced into the intestinal canal." In 1880, Dr. D. O. Brau reported that he had used podophyllotoxin as a purgative for children and found it completely to represent podophyllin. To a child thirteen years old he gave from $\frac{1}{100}$ to $\frac{1}{80}$ of a grain.

We have used podophyllotoxin upon kittens three times, producing free catharsis in each case within an hour. In two of the experiments catharsis was carried to the extent of bloody, mucous passages, the bowels remaining loose for several days. In these cases there was no depression of any kind manifest until after many watery stools had been voided, when the cats betrayed the weakening effect of this drain of albuminous fluid. In one case the catharsis was promptly checked by the hypodermatic administration of a sixteenth of a grain of morphia. We have also used podophyllotoxin upon man four times—two of the cases being in the Cincinnati Hospital.

I will quote the notes of the resident physicians making the observations.

Dr. Nicheiser reports :

"April 26th. A. P., æt. fifty-eight. Chronic rheumatism. Bowels were unusually irregular. Has now had a constipation of five days' standing. In the morning complained of pain in abdomen. Ordered tinct. opium, gtt. x. Pain relieved. At 3:45 P.M., was given gr. $\frac{1}{10}$ podophyllotoxin in a fifty-per-cent. alcoholic solution hypodermatically. Hourly observations were made of pulse and temperature. Neither

of these was in any way affected. Nine hours after the injection, at 12:45 A.M., he had one hard moulded stool, and at 5 A.M. another stool, soft in character. Thereafter his bowels continued regular until May 4th, when he was discharged from the house. There was some local irritation at the point of injection, but it was inconsiderable in amount."

Mr. Mussey reports :

"April 30th. O. M., colored, æt. twenty-one. Syphilis of nine months' duration. Now has several abscesses on neck, and an antero-posterior curvature of the spine. Patient's bowels have been constipated and it has always been necessary to give a cathartic to bring about a movement, the one usually employed being epsom salts $\frac{3}{4}$ ss. States to-day that he has had no stool for two weeks.

"8:45 A.M. Gave $\mathbb{M}$ xx. podophyllotoxin in solution fifty per cent. alcohol, equalling gr. $\frac{1}{10}$ of the drug, hypodermatically. Pulse 84, temperature normal.

"9:40 A.M. No stool, pulse 84, strong and full. Temperature not taken.

"1:40 P.M. No stool, nor has patient had any inclination in that direction. Pulse 72, good and full. Some swelling, redness, and tenderness at point of injection.

"At some time during the early morning of May 1st patient had a large stool, and during the day had another. No pain accompanied either movement. Questioning brought to light the fact that the night before the podophyllotoxin was given the nurse had, without orders, given a dose of salts, which had produced a small stool that very morning. For some days after administration of drug, bowels moved without any trouble. Patient had at the time the podophyllotoxin was given, complete paralysis of motion and sensation in lower limbs."

The doses used in these cases were those recommended by Dr. Brau for children of thirteen years of age.

In view of the smallness of the dose, therefore, the results may be held to be satisfactory, especially when we consider that we were working with a preparation which was probably not at all equal in strength to chemically pure podophyllotoxin.

It will be observed that the absence of any effect upon the circulation and temperature is a matter of importance, especially in a class of drugs the influence of which in the main is depressing.

A few days ago two healthy adults took respectively $\frac{1}{10}$ th gr. and $\frac{1}{4}$ gr., hypodermatically, from this same solution that had been used in the hospital, and was now some two months old. There was no cathartic effect produced, the glucoside having probably undergone decomposition. There was not a little local irritation at the seats of injection.

Elaterin— $C_{20}H_{28}O_5$ —is the principal constituent of elaterium, and when pure is obtained in colorless, shining, hexagonal scales or prisms, with an acrid and extremely bitter taste. It is soluble in 125 parts of alcohol at 15° C., in 2 parts of boiling alcohol, in 200 parts of ether, in amylic alcohol, carbon disulphide, and chloroform. It is insoluble in petroleum benzene. According to various authorities, it is present in elaterium in from 15 to 50 per cent. Brunton states that elaterin used in subcutaneous injections "acts on the nervous system, causing salivation, insensibility, tetanus, and dyspnoea, and also that it only acts as a purgative when taken internally, and appears to require bile in order to act." It is a powerful and valuable remedy, and is especially indicated in dropsies and in those cerebral affections in which a reduction of the general blood pressure is necessary.

The results of our experiments, if verified, will be much more satisfactory to the therapist. In two experiments we have used $\frac{1}{10}$ th gr. and $\frac{1}{4}$ th gr. of elaterin instantaneously. In neither instance was there any untoward effect—the kittens remaining playful and evidencing no discomfort during the time of operation of the drug, and in both cases large watery stools were produced within an hour. We have not as yet used it upon man.

Elaterium.—The striking difference in the results obtained by us and those arrived at by other observers in the use of elaterin, urge us to extend our observations and to make comparative experiments with elaterium.

Elaterium is a substance deposited from the juice of the squirting cucumber. It contains, besides elaterin, pectin, prophetin, ecbatin, or elateric acid, hydroelaterin, etc. We could not but think that a mistake had been made in setting down the physiological action of elaterium and its active purgative principle as identical, and we were inclined to believe that the distressing fatal symptoms observed after the hypo-

dermatic use of elaterium were due to some other one of the ingredients of the juice than elaterin. It is certain that in no instance in our hands did the hypodermatic employment of elaterin lead to the results to be found set down in our standard textbooks; while the employment of the elaterium did give rise to the apathy, somnolence, coma, dyspnoea, convulsions, and death, as described by former observers. Our confirmatory observations were as follows:

An extract of elaterium was prepared by treating four grains of the pulverized elaterium with 120 minims of commercial alcohol, and boiling for a few minutes. After cooling, the clear extract was decanted from the insoluble residue.

In one case five minims of the solution (representing one sixth of a grain of elaterium) were diluted with an equal quantity of distilled water, and injected into a cat. In a second case ten minims of the solution (representing one-third grain of elaterium) were diluted with an equal quantity of water, and also injected into a cat.

The details of the cases are as follows:

Experiment No. 1.—Elaterium, gr. $\frac{1}{4}$, 1:40 P.M. 2:21, hard stools. 2:25, disturbed respiration, salivation, muscular weakness, attempted vomiting, symptoms rapidly increasing in severity. Coma, convulsions, profuse salivation, apnoea, and death at 2:38. Autopsy: Lungs intensely congested; heart ceased action in diastole, and was full of blood; stomach and upper part of small intestine empty, injected, and succulent; large intestine impacted.

Experiment No. 2.—Elaterium, gr. $\frac{1}{4}$, 1:35 P.M. 2:45, some uneasiness. 3:45, somnolent. 4:30, still somnolent, apathetic, and has some salivation. No stool. No alarming symptoms. This kitten was given to the physiological laboratory the next day, that its organs might be used as injected specimens. When killed and opened, its alimentary canal was found to contain vast numbers of large lumbricoid worms. The small intestine was so distended that the injection was a failure.

We again used elaterin with the following results:

Experiment No. 3.—Elaterin, gr. $\frac{1}{8}$, 11:12 A.M. 2:45 P.M., has been sleeping most of the time since the injection was given. 3:35, same as above. 5, no stool—no bad symptoms.

Experiment No. 4.—Elaterin, gr. $\frac{1}{8}$, 11:16 A.M. 1:40 P.M., large watery stool.

1:47, copious watery, yellowish stool. 4:30, cat quiet—no bad symptoms.

NOTE.—The approaching departure of one of us for new fields of labor interrupts the further prosecution of our joint observations. We, therefore, offer the results of our studies to our professional brethren without a promise of further extension, as a suggestion of what may be accomplished in the future, and as a guide, however insufficient, to the production of catharsis by means of hypodermatic medication.—*Med. News*, Nov. 6, 1886.

Cleveland (C.) on the Place of Quinine in the Therapeutics of Typhoid Fever.—I believe in the power of quinine to abort some cases of typhoid, to shorten the duration of others, and to ameliorate the symptoms of most. I have seen the effect too often to have any lingering doubt about it. I believe, too, that the time is coming when this will be universally acknowledged. This will be when the detection of the typhoid bacillus enables us to attack the cause of trouble early in its progress.

To be successful the drug must be used boldly. In giving large doses we are of course in danger of overstepping the therapeutic effect and obtaining the toxic. But we are in the same danger with opium. We know perfectly the signs and symptoms of the toxic effect of that drug. We ought to know as well those of quinine. Like opium, quinine is capable of producing death, but enormous doses are necessary. As with opium, we should know by the symptoms how far to push it. Experience has taught that 180 grains given in one dose, *may* produce death. Five ounces, 2,460 grains, taken in a period of ten days, *has* caused death. That would allow an average of 460 grains for the 24 hours. But there is no one who, in his wildest dreams, would think of giving 180 grains at a dose or a daily dosage of 460.

In regard to the tolerance of the drug, I believe there are very few people who cannot take it in the early days of the fever. In the first ten days, before the mucous membrane has undergone changes due to the typhoid process, and the functions of liver and kidneys have been disturbed thereby, there are comparatively few who do not bear the drug well.

It is important to begin with quinine early and not to wait to be absolutely sure of diagnosis. My own plan is to begin

with a large test-dose, of five to ten grains, given every fifteen minutes for two hours, as the nature of the case presents itself to my mind. This dose is given in the latter part of the afternoon. The temperature is taken every two hours. If by morning there has been a decided lowering of the temperature, I feel encouraged to believe that it is a case manageable by quinine, and particularly so if it is accompanied by profuse sweating.

As quinine is eliminated so rapidly and in such large quantities, I believe it better to give it continuously, in order to keep the system constantly under its influence. Following out this theory, instead of giving it once a day in a large dose, I then give five or ten grains every two or three hours. If by seventy-two hours no decided effect is produced on the temperature I discontinue the use of quinine entirely, or give it merely in tonic doses. If by seventy-two hours it has not reduced the temperature I believe it never will.

I have not found it necessary, in the cases where I have used quinine, to give more than eighty grains in the twenty-four hours, and rarely more than sixty, while forty grains is all that has been required in some. It is important to bear in mind that giving a large amount, sixty grains for instance, distributed in five-grain doses throughout the course of twenty-four hours, is not the same as giving that amount at one dose. By the time the last five grains are given, fully three fourths of the whole have passed out of the body in the secretions.

In all cases I use sponging, not for the antipyretic effect, but for the sake of keeping the skin clean and active.

In a case during the past year, in a young lady of eighteen, I gave five grains of quinine every two hours, now and then stopping it for a shorter or a longer period to note the effect upon the temperature. As long as the quinine was given every two hours the temperature would remain nearly normal, but just as soon as I *let up* on the quinine, up would run the temperature. On the tenth day, being a little uneasy from the apparent effect upon the heart, the patient having taken an average of sixty grains a day for nine days, I stopped the quinine. In the *afternoon* the temperature went above 103°, and also on the *next* day. For these two days I used antipyrin to reduce the temperature. On the twelfth

day I returned to quinine in the same doses, not being satisfied with the antipyrin and because I had more faith in the quinine. The temperature went down at once, and did not run up again after the fifteenth day, when I began to lengthen the intervals between the doses an hour or more each day. The disease was then practically at an end, but I continued to use the quinine for two weeks longer in small doses. This case serves to illustrate the experience I have had with a number of others.

Again, I had been treating for ten days a case of typhoid with aromatic sulphuric acid, and other remedies, *pro re nata*, where nearly every symptom of the disease was present, when, as matters were going from bad to worse, I decided to give quinine, and gave five-grain doses every two hours with the happiest results. The whole condition changed for the better within twenty-four hours. Every symptom was ameliorated. The diarrhoea, which was constant and characteristic, began to decrease at once. The patient looked better and felt better. Within a week she was convalescent. This case is not unique in my experience. I mention these two cases because they were severe and unquestionably typhoid; and the latter I speak of particularly, to emphasize the point that quinine will sometimes shorten the duration of typhoid, even after the tenth day.

I can recall a number of cases in families where typhoid existed and subjected to the same influences, where, but for the timely administration of quinine, I believe positive typhoid symptoms would have developed. I believe it is in this stage, the stage of so-called incubation, when the typhoid germs are said to be in an inactive state, that the drug will yet be found to accomplish its greatest work in the way of prophylaxis.

One other point I have observed is, that typhoid patients in whom quinine acts well not only recover more rapidly, but are more likely to recover permanently, or have less of the disagreeable after-effects of the disease. Statistics, if they show any thing, show that the expectant plan of treatment gives a much higher death-rate than where quinine forms an important element in the treatment.—*N. Y. Med. Record*, Nov. 20, 1886.

Corson (H.) on Chorea and Its Treatment by Cimicifuga Racemosa.—In the *Maryland Medical Journal* of

April 24, 1886, there is an article on chorea by Spencer M. Free, M.D., of Baltimore, which came to me a few days ago, and which has induced me to offer your readers some remarks in reference to its treatment.

This excellent paper by Dr. Free, so replete with information in all that relates to the causes, symptoms, pathology, and treatment of the disease as known by authors of the present time, is well worthy of attentive perusal. But so greatly was I amazed not to find the cimicifuga—black snake-root—spoken of as a remedy, though he remarks, “without a careful search we have come upon thirty-nine forms of treatment,” that I am impelled to offer him one more remedy, a remedy greatly to be preferred to the one of which he says, “The one remedy which is the main reliance of the great majority of practitioners is arsenic.” Quite half a century ago there were three country physicians in Pennsylvania who attracted attention by their valuable contributions to the *American Journal of the Medical Sciences*, in relation to their treatment of diseases so frequently met with by physicians. They were Samuel Jackson, of Northumberland; Ezra Michener and Jesse Young, of Chester County.

Although I have used cimicifuga racemosa in every case which has come to me in more than fifty years, and always successfully in a brief time, I feel that justice would not be done the subject by giving my experience without preceding it by the experience of Dr. Jesse Young.

The *American Journal of Medical Sciences* of February, 1832, on page 310, has “Observations on the Remedial Powers of the Cimicifuga Racemosa in the Treatment of Chorea,” by Jesse Young, M.D., from which I take the following notice of four cases. He says:

“It is a very popular medicine both for man and beast; it is used in infusion or decoction chiefly as a pectoral medicine. . . . Who first used it in chorea I have no means of learning.

“1. Four years ago, a boy, aged eleven years, was attacked. One side was affected and was in almost constant motion, except when he was asleep. During more than four months his physician was using all his efforts to arrest it, but without the least benefit resulting. An *old woman* then told him that the black snake-root would cure it. She told him to give a teaspoon-

ful (of the root) three successive mornings, then omit three, and so on, till he gave it nine times. He told me when he had given six portions the boy was almost well, and when he had taken his nine portions he was perfectly cured, and has so remained.

"2. In the month of March of the present year a girl was attacked. Her physician was called, and after treating it for a month without any good resulting, her physician agreed to her using the snake-root, of which he had heard, as used in the above case. After taking three portions, her symptoms were much improved, and after six doses she was entirely well; the other three were, however, given, and she remains well at this time. In this case it puked severely almost every time it was given.

"In the first case it did not vomit, but several times, though not always, made him quite sick.

"I now determined to watch its effects and ascertain whether it would cure by its own intrinsic properties (not as an emetic) or whether these reported cures might not be mere coincidences, and, in reality, the consequences, perhaps, of former treatment.

"3. On the 12th of September I was requested to see Mrs. —, aged nineteen years; married two months; believed *not to be pregnant*.

"The affection commenced two weeks ago, but so gradually that she was not aware of any thing serious being the matter till within a day or two; she has got so bad as to be almost constantly in motion with the left side. It does not prevent sleep; health good; could detect no cause, save that her father had been once affected when a boy. In his case, caused by fright, and was cured or got well, in two or three years, after using much medicine without benefit; but believes it was the cold bath that cured him at last.

"I ordered an emetic of tartrate of antimony, with a view to its impression rather than its evacuant effect, to be followed by calomel and jalap next day; and after this to purge every morning with cream of tartar and jalap, till I could procure the snake-root. On the 20th I took a quantity of it to her, but was startled when I found the affection had extended to the other side, and was tenfold aggravated; her arms, her legs, her head, face, tongue, and every mus-

cular part of the system appeared to be in continual, irregular, alternate motion. She could only, with great difficulty, articulate so as to be at all intelligible. The power of deglutition was suspended to a very great extent. She could not walk one step nor support herself erect without assistance, nor could she sleep, day or night, on account of the constant twitching and jerking of the muscles. Such was her condition when she began to take the snake-root—one teaspoonful of the powder three times a day before eating; but if it sickened her when taken on an empty stomach, to take it after instead of before meals, in any pleasant vehicle, as molasses, preserves, etc. On the 25th, I visited her again, and found a great change for the better. Had walked the day before several hundred yards, could speak and swallow as well as ever she could, and could sleep well at night. Her arms were still somewhat affected. Ordered the medicine discontinued for two or three days, then used again as before.

"October 3d found her so well that a person who was not aware of her having the affection would not notice any thing ailing her. A few more doses were used, once or twice a day, for a week, and she was well, and is so at this time."

His remarks are too long to copy here, but it never sickened if not taken on an empty stomach. Did not at any time, purge, sweat, or act as a diuretic, but "caused an uneasy feeling amounting to almost an ache through all her extremities every time she took it, which would continue from one to three hours; that it *alone cured* must be obvious to every one."

4. The fourth case spoken of by Dr. Young was told him by his friend, Dr. Gregg, who said: "I should have had a case to treat had it not been for the black snake-root."

Dr. Gregg saw the man a short time after, and learnt that the patient had been cured in a few days by the article.

There is much more in Dr. Young's article which would deeply interest your readers, but I must be content with merely adding his conclusion: "Neither *a priori* reasoning nor professional erudition can ever direct us to the peculiar properties or effects of any of our vegetable productions; they can only become known from repeated trials and experiments. In this class exactly stands the *cimicifuga racemosa* in chorea and probably in other nervous affec-

tions. Let it be fairly tried, and on these trials let its merits stand or fall."

The above was published fifty-four years ago last February, and yet to-day, in a paper published by a physician living in a city, a man conversant with medical literature, and earnest and diligent in his search for remedies useful in chorea, does not name it with his twenty-nine. Is this evidence that, tried on its merits, it has failed? Or is it not more probable that it has been but rarely tried, and that those who have tried it have failed to report, and thus it has not been brought to the notice of Dr. Free?

Be this as it may, I took Dr. Young at his word, gave it a trial of fifty years, and now report it almost if not quite a specific in chorea, and of great value in many other affections.

I ought to say here that Dr. Jesse Young was probably the first regular physician that ever used the black snake-root in chorea—at least the first who published an account of its use; for in a note by the editor appended to the communication, he says: "We are not aware of the remedial powers of the black snake-root having been noticed by any writer on the *materia medica*, but Dr. Physick informed us nearly ten years ago that he had known the plant, given in doses of ten grains every two hours, prove successful in the treatment of chorea in several instances."

I have relied on it alone, and in every case it has given speedy relief. I brought it to the notice of our County Medical Society, and some of the members can bear similar testimony to its control over the disease.

In June, 1836, Mrs. W., a young woman advanced to the middle of the third month of her first pregnancy, became ill with chorea, and I saw her on the first day of June. I find that from the 1st of June until the 16th, external irritation of the spine with tonics was mainly relied on in her treatment, and by this time she was confined to bed in a most pitiable and helpless condition. I then directed one teaspoonful *tr. cimicifuga* after each meal; her recovery was rapid, and I ceased attendance on the 12th, from which time she attended to her household duties, and passed through her confinement on December 15th, and had a good "getting up."

In 1850, a girl of eleven years, of rather unusual growth, was effected with chorea.

I was called on account of the mother being informed by a friend, whose child had been relieved of an attack by the snake root, advised by me. Her motions were almost incessant—even when asleep they were not wholly absent;—speech and swallowing difficult; confined to bed, and with so idiotic an appearance that the mother, a woman of family pride, evidently dreaded her recovery, confident that her intellect would be impaired. I directed the infusion, made as before, from properly prepared roots. She began its use April 4, 1850. I ceased to attend her on the 30th, when she was walking out, but called again on the 4th of May and found her entirely well.

On the 29th of April, 1875, I was asked to see a boy, about eleven years of age, who, though still going to school, had for a few weeks been affected with chorea to a degree that caused children to laugh at him and sometimes mock him. He was able to eat quite well, and though his limbs were much affected, and his face full of grimaces, had not been taken from the school. He was put on the use of tinct. black snake-root (prepared by myself from good roots gathered at the proper time). My last visit to him, he being apparently well, was on the 15th of May, but the medicine was continued for two or three weeks longer, a dose or two daily. His recovery was complete.

In the early part of 1874, a boy in his eleventh year had an attack of chorea which followed a slight attack of rheumatism of the right knee, from which he had suffered a month or two before. The chorea began with twitching of the right side. Very soon a physician was called, and by the end of a fortnight then the beginning of June, he was unable to talk, had great difficulty in swallowing, could not feed himself, and was soon unable to continue in bed, so a bed was made on the floor for him; but even then so greatly did he twitch and jerk, that he oftentimes would roll out of it on to the floor. During more than four years he suffered on, though his physician had anxiously and faithfully applied his remedies one after another till his list of those of reputed value was exhausted. In February, 1879, while he was in this pitiable condition, he was informed by one of his friends who had heard of his case that I had several times used the snake-root tea with success. The father, knowing the

plant, procured it. It was freely given with marked advantage, and he was soon well. He is now a strong, healthy young man.

Coming still nearer to the present time, I will briefly notice two cases living within about two hundred yards of each other. I was invited, May 26th, by a young medical friend, to see with him a young girl with the following history: A school girl, who was 13 years old in June, 1885, and who passed naturally through her third menstrual period March 5th, was during the next fortnight, to be examined for promotion, and of it she seemed to have much dread. She had but one more day to be questioned, the 26th of March, and when she rose in the morning she was morose, disregarded the directions of her mother, who became alarmed at the change in her behavior, and on inquiring of her the cause of it, was told by her "that she felt bad and did not know what ailed her." She went to bed; soon the choreic symptoms rapidly developed. She could not talk after that day, nor rise from her bed. When I saw her it seemed dangerous to put any fluid into her mouth, so great was the difficulty in swallowing. She could not speak a word, her left side seemed paralytic. She had had almost no food for days, and there was a large bed-sore on her back, over the lower lumbar vertebræ (produced by the continuous movement of her body), and also a contracted condition of the muscles of one side of the neck, which gave evident suffering when she attempted to swallow. Her face was fatuous in expression to a great degree. We arranged to give fluid ext. cimifuga, made from roots gathered in proper season, dried and preserved properly, one teaspoonful *after* every meal and one at bedtime, if she could bear so much. The mother says that she saw a change for the better on the first day. She improved rapidly. On the 3d of June, only seven days after she began to use the snake-root, she began to talk—imperfectly at first, of course, for she had not made an effort to do it for more than two months; in about ten days more she was sitting up, and even walking about the room, and on the 25th of June walked a few hundred yards to her aunt's house.

On Sept. 14th was called to see a tall youth of 19, who, on May 3d, was entirely well of an attack of rheumatism which had confined him to bed for nearly three weeks. He lived about three hundred yards from the case just narrated. I found him sitting

in an arm-chair, but with numerous jerks, contortions, and grimaces, and exhibiting a peculiar wilfulness quite unnatural to him, which caused his aged grandparents to fear harm from him. He was at once put on the use of the cimicifuga, the fluid extract. He improved daily, and on the 18th he walked a quarter of a mile. On the 24th the patient was greatly improved. In a week afterwards he was apparently well save some imperfection in talking. Since then I have not heard of him save that he had ceased to take the medicine—not a very safe omission, even though he felt himself to be well.

As for the remedy, in every county in the State, I presume, it can be found; any mother can prepare and administer it; and were this done early in the cases of chorea which are found in every township in the land, physicians would not be mortified, and the inefficiency of our profession exhibited before the public by the appearance on our streets of young persons helpless in limbs and contorted in features by this disease of the nervous system.—*Med. and Surg. Reporter*, Nov. 6, 1886.

Thompson, (W. G.) on the Movements of the Heart and Intestines. Illustrated by Photography.—Dr. William Gilman Thompson read a paper which was illustrated by instantaneous photographs of the normal pulsating heart, taken in full diastole and systole and the various intervals between, compared with others showing the modifications in the form of the heart produced by thermic, chemical, and mechanical irritation. By a special form of apparatus he had been enabled to take six different views of the heart in motion within one second. This was something which in this country had never been accomplished before. The animal experimented upon was anæsthetized, the heart exposed, and a collar of white celluloid placed behind it, thus giving a white background. He had photographed the heart of the kitten, frog, pigeon, lizard, calf, rabbit, and other animals. The shape of the heart in these different animals differs considerably; but in general the longitudinal diameter exceeds the transverse by one-fourth during diastole. The movements and alterations in the form of the heart were determined largely by the thick-walled left ventricle. If the chest and pericardium were opened and artificial respiration kept up, the movements of the heart would be

found greatly exaggerated ; if artificial respiration were not kept up, the movements of the heart might be diminished. It was, therefore, too uncertain to enable him to draw conclusions under such circumstances as to what were the relations of the heart during motion to the other organs in the human subject. Much might be learned, however, with regard to the changes in form of the heart and the force of its pulsation.

Among the more important later observations which the author had made were the following : *First*, in most animals, the base of the heart descended very little, if at all, during systole. A prominent exception to this rule was seen in the frog. This movement was generally ascribed to elongation of the large arteries from increased tension during ventricular systole. *Secondly*, regarding changes in the diameters of the heart during systole there was much dispute among physiologists. In most animals there was slight shortening in the long diameter during systole ; in the pigeon, however, there was slight lengthening. The transverse diameter was shortened usually twice as much as the longitudinal diameter in ventricular systole. The antero-posterior diameter was uniformly elongated by about one eighth. *Thirdly*, the apex, when the pericardium was removed, was uniformly tilted forward, upward, and to the right, and the rotatory movement of the heart from left to right on its long axis occurred in excised hearts, as it did also in the heart *in situ*, but less extensively. The right ventricle lay so much higher and was so much thinner walled than the left that it had much less influence on the shape and movement of the heart than the left, especially near the apex.

It was a question in text-books whether the apex-beat of the heart was due to the thrust of the apex against the chest-wall or to the hardened anterior wall of the left ventricle, which in systole pressed against the chest. When the chest was opened, the apex was free to move through a much greater distance ; and it was therefore unfair to conclude that, in the natural position, the apex-beat might not be due, at least in part, to the hardened anterior wall of the heart pressing against the chest ; but the stroke of the apex also influenced this beat in animals.

The apex and whole contour of the heart were greatly modified by the influence of

drugs. Those drugs which increased the force of systole rendered the apex of the heart sharper. Drugs which lengthened diastole rendered the apex blunter. If in the latter case an antagonistic drug was given, the apex would still remain rounder than normal. Uninfluenced by drugs, the surface of the heart during its movements was smooth ; but it became more or less irregular under the influence of drugs. When the heart was slowly deprived of blood, the thick-walled left ventricle retained its shape pretty well ; but, if held up, the right ventricle pouched downward. If the heart were now to be plunged into a liquid, it would fill itself by suction and assume a rounded form. The right ventricle continued to act feebly after the left had ceased its attempts, thus showing the apparently greater vitality of the right ventricle.

The auricles in systole were uniformly contracted, but to a small extent as compared with their own volume or the contraction of the ventricles. The independence of contraction between the auricles and the ventricles was shown by the photographs ; the auricular systole overlapped the ventricular in point of time.

The extent of movement of the heart as a whole bore no definite relation to its size. It depended entirely upon the suddenness and force of systole, or the amount of work done by the heart.

In the photographs during systole the coronary arteries were seen to be prominent and distended. It had been questioned whether they were filled during systole or closed during systole by the cusps of the valves. If the latter were the case, these arteries must be filled during diastole by the elastic recoil of the aorta. The coronary arteries had been cut open during systole and found to spurt at that time ; but it was shown in the photographs that their blood was dammed back during systole by the strongly contracted ventricle, and, being thus put upon extra tension, it was only natural that the blood should spurt when their walls were cut. The author thought the illustrations proved that the coronary arteries received some blood-supply during diastole, and perhaps also during systole.

When the longitudinal and spiral fibres were destroyed by section, the circular fibres were made to contract, and almost entirely occlude the ventricular lumen in some cases. The contraction of the circu-

lar fibres was uniform and symmetrical. The papillary muscles were seen to stand out towards the centre of the ventricular cavities, and thus the photographs demonstrated that they had independent contractile power.

Of the various cardiac stimulants which he had tried, heat directly applied had the greatest influence, and apparently more upon the superficial muscles. Glenoin appeared to be the most active of the chemicals. Chloral seemed to be powerful in causing marked diastole, and the surface of the heart under its influence became irregular.

Dr. Thompson had also been successful in photographing the intestines, bladder, and diaphragm in motion. He showed photographs of the intestine which demonstrated peristaltic action towards both the pylorus and the anus; also the pendulum motion, and a circular contraction, which, when caused by pinching the intestine, produced considerable constriction. As to the peristaltic wave travelling in opposite directions, he thought it could only do good if the reverse motion were less in degree than the forward, as it would bring the ingesta more intimately in contact with the surface of the intestine and hasten their absorption.—*Phila. Medical Times*, Nov. 27, 1886.

Bennet (E. H.) on a case of Diabetes Mellitus in a Boy Three Years of Age.—Allen Brown, male, æt. 3 years, 1 month, and 15 days, has been a healthy child from birth, well developed, active, very intelligent, and of robust constitution. The parents lost a child—a girl—a few years ago, aged 7½ months, who developed a train of symptoms similar to those stated below as observed in this case. The paternal grandmother died at the age of 41 years, it is said, of pulmonary disease. With the exceptions named above, the family history is excellent. Pertussis and measles are the only diseases from which the child has suffered, and these were of a mild type. There is no history of an injury or undue exposure to cold.

On the 26th day of October, 1885, the father came to see me, and gave the following history of the case: About three weeks before, they began to notice that the child played out-of-doors less than he usually did. Soon after this he complained of being tired after exercise; then he began to eat more than common, drank a large quantity of water, and passed more urine

than usual or natural. These symptoms all increased gradually until the time named, when they were well marked. I requested that a sample of the child's urine be sent in for analysis, which, when examined, was found to be of high specific gravity, 1039, acid, and contained seven per cent. of sugar, as determined by Pavy's solution.

A careful examination gave us no clue as to the etiology of the disease. There was no indication of an injury having been received, and no sign of hepatic or splenic disease; mind clear, cheeks rosy, the little patient playful, and even then seemingly to be in perfect health.

The case was explained to the parents, and a milk diet earnestly advised, in connection with other remedies. They thought, however, that it would be impossible to carry it out, and were not willing to deny the child those articles of food for which he would cry so pitifully. If they could have felt assured that a restricted diet would have saved the child, they would willingly and faithfully have carried it out; but this could not be guaranteed—indeed, hardly hoped for. But it certainly was the best that could be done. Under these circumstances, no hope was entertained of saving the patient.

The exact amount of urine could not be learned, as a considerable amount of it was passed in bed at night, but as nearly as we could tell, it was about six quarts in twenty-four hours.

I at first put the child on fluid extract of ergot, in full doses, thinking that it might reduce the quantity of urine, as it will generally do in cases of "diabetes insipidus," but it had no appreciable effect. Afterward Clement's solution of the arsenite of bromine was substituted for the ergot, but its effect was the same—*nil*.

The child lost ground daily until November 20th, when his appetite failed and he began to suffer from vomiting. From this time until the 29th, the day on which he died, he failed very rapidly, and at that time emaciation was extreme. Constipation was obstinate throughout, but urethritis did not develop. Skin dry and parched; restlessness was well marked during the last month of his life. Mind remained clear until a few hours before his death, when he became drowsy and afterward comatose.

The little girl, aged 7½ months, who died

a few years ago, presented many symptoms in common with the second child. She was ill but a short time, was very thirsty, and had an enormous appetite. It was not possible to satisfy the child's hunger with milk, which is usually sufficient at that age, but it had to be fed with cracker and milk in considerable quantity. Constipation was marked, while the quantity of urine was very large. At death emaciation was extreme. The mother noticed in both cases that the children's clothing, after being wet with urine *once*, would be as stiff as if starched.

Remarks.—The age of the patient, short duration of the illness, and strong probability of there being two cases in one family, are points worthy of notice. All writers agree that *diabetes mellitus* is most common in adult life, but liable to occur at any age. Dickinson¹ "reports a case aged 6 years, Bence Jones one aged 3½ years, and Roberts one at 3; and in the reports of the Registrar-General of England for the years 1851–60, ten deaths under the age of *one* and thirty-two under the age of *three* are included." The correctness² of the diagnosis in the last cases has, however, been questioned. Prof. Tyson states³ that he has never met with a case in a person under *twelve* years of age. Senator⁴ says that although the disease occurs at every period of life, it is rare in children and the aged.

Although the exact age of the individual cases cannot be learned, it will be seen by the following statistics that the preceding statements are correct.

Griesinger⁵ reports but six cases under *ten* years of age among 217; Seegen none in a list of 140; Andral but two in 84; while Mayer did not find any among 74 cases, and Schmitz but one in 104. Dickinson,⁶ who presents the largest collection of cases we have been able to find, reports 74 under the age of *five* years in a total of 6,496, a little more than one per cent. Something, however, must be deducted from the last figures, as cases of *diabetes incipidus* are included. Prof. Senator⁷ collected 30 cases under 15 years of age, among whom was one reported by Brown,

aged *twenty months* when attacked with the disease, who died after a few months.

It is doubtless somewhat difficult to ascertain exactly when a case of this kind commences, but in the one reported we think there is no good reason to suppose that it existed more than two months, as at the first examination, thirty-five days before death, the child, apparently, was in perfect health. These facts are also in accordance with the history of the disease in children.

"The younger the patients are, the more malignant and the more rapid, in general, is the course. In persons of advanced years the disease makes its appearance, for the most part, much more mildly, while in the aged we not unfrequently observe an excretion of sugar—now more, now less, in quantity—for a long time, and also an increased secretion of urine, with but trifling additional symptoms, and without those profound disturbances of nutrition which so speedily make their appearance in young persons." According to Griesinger's table of duration,⁸ he found only one case lasting but *three* months.

Cases of short duration have been reported⁹ by Wallach (5 weeks), Dobson, Roberts, Becker, W. T. Smith, and Senator; while Becquerel has reported one case which lasted but *six days*. This class of cases Senator terms "*diabetes acutus*."—*Col. and Clin. Record*, Nov., 1886.

Draper (F.W.) on Pancreatic Hemorrhage and Sudden Death.—It is but recently that attention has been called to the fact that hemorrhage within and around the pancreas quickly eventuates, in many cases, in the death of the patient, the fatal issue resulting either immediately after an interval to be measured by minutes, or, secondarily, after a few days.

A strong and rugged laboring man, aged forty-five, was found dead in his room late in the afternoon of Monday, October 20, 1884. He had not been seen during that day or the previous day (Sunday), but he was at work all day Saturday, and in the evening of that day appeared in his usual robust condition of health. He was not intemperate in the use of alcohol, and indulged to inebriety at long intervals only.

When discovered, his dead body, fully

¹ Pepper's System of Med., vol. ii., p. 203.

² *Ibid.*

³ Pepper's System of Med., vol. ii., p. 203.

⁴ Ziemssen's Cyclo., vol. xvi., p. 865.

⁵ *Ibid.*, p. 866. ⁶ *Ibid.*, p. 866. ⁷ *Ibid.*, p. 867.

⁸ Ziemssen, vol. xvi., p. 978. ⁹ *Ibid.*, p. 980.

¹⁰ *Ibid.*, p. 981.

clothed, was in a sitting attitude in a chair, the hands resting naturally on the knees and the head dropped forward upon the breast. He had the posture and appearance of one asleep in his chair. The condition of the room gave no indication of illness or distress on the part of its occupant before his death; there was no vomitus or sign of an attempt to prepare or to take domestic or other remedies. When and in what manner death claimed its victim could only be guessed; the body was cold and cadaveric rigidity was developed to an extreme degree. The only suggestion which the surroundings offered upon the matter of the time of the death was the fact that the bed-clothing was turned down away from the pillow, the natural act of one about to get into bed. The autopsy was made twenty hours after the discovery of the body.¹

When the stomach and intestines were turned aside, before any of the abdominal organs were opened or disturbed, the region of the pancreas showed, beneath the peritoneum, the dull red color of extravasated blood in the sub-peritoneal tissues, extending over a space a hand's breadth in diameter. Upon section of this area and exposure of the pancreas, it was found that the organ lay in a mass of effused blood, and was itself infiltrated with blood throughout its extent, but more especially in its outer half, toward the tail, while the outer third was not only deeply stained with blood, but was softened to a marked degree.

A woman, aged forty-four, was found dead in her bed, at noon, November 3d. She lived in wretched squalor in an attic, getting a scanty income as a charwoman. She drank beer every day, her neighbors said, but was rarely intoxicated. She was seen at 6 P.M. the day before her death, and was apparently in perfect health. She went to bed with her boy, a lad of about ten years; the latter stated that nothing occurred during the night out of the usual course. The woman got up in the morning and dressed herself; presently she complained a little of her head, and soon went to bed without undressing. The boy went to school, and on his return home found that his mother had died in his absence, and was lying where he had left her.

¹ Want of space forbids the insertion of full details of this and the following autopsies.—ED. ANALECTIC.

Just when, or under what circumstances the woman died, no one knows. She made no complaint to her neighbors, and her statement to her boy that her head felt badly was the only suggestion that she was in any way ill. I saw her dead body at 2.20 P.M., and rigor mortis was then fully established, and the face showed marked lividity.

The autopsy was made twenty-four hours later.

The pancreas was infiltrated with blood throughout its extent, most markedly at its splenic end. There was a moderate amount of blood effused in the retro-peritoneal tissue. The organ itself showed nothing remarkable on section, beyond the hemorrhagic infiltration above noted. Its size was not increased.

A woman, aged twenty-six, had many quarrels with her husband on account of her intemperate habits. A week before her death she came home one night fully intoxicated. Her neighbors heard the usual family dispute, but did not interfere to check it. Her husband stated that he put her to bed, but denied the use of any violence. Next day he left her, and did not see her again to speak to her until he was summoned to her, just before she died. During the week following the separation, the woman stayed with friends, who lived at some distance from her home; she complained to them of the abuse which, she stated, she had received from her husband, and especially accused him of kicking her in the abdomen, in proof of which accusation she showed an ecchymosis near the umbilicus. She seemed none the worse for the alleged assault, however, and went out repeatedly during the week in apparently her usual health. She was not intoxicated at any time in this interval. She was seen walking on the street the night before the symptoms developed which preceded her death. Twenty-four hours before she died she went to bed, complaining of great pain in her abdomen. There was no vomiting; she "spit up some blood." Her abdominal pain was relieved by brisk rubbing over its seat. Fourteen hours after the onset of the illness a physician was called, who found the woman pulseless, with a pale, cold skin, covered with clammy perspiration. Her mind was clear. She complained of the abdominal pain and of intense thirst. A hypodermic injection of morphia afforded partial and transitory relief, but the com-

plaints of pain in the abdomen continued until death, the day after the seizure.

In the abdominal cavity were twenty-two fluid ounces of thin, red fluid. Beneath the peritoneum of the mesentery, in the entire region behind and below the stomach, between the stomach and the colon, and the liver and the colon; also, along the right flank behind the ascending colon, and over the right kidney, the sub-peritoneal tissues were fully infiltrated with blood.

The pancreas was completely filled with effused blood throughout its extent, but the change was especially marked in its middle part and at its tail. The organ presented a sodden, soft, and slimy appearance, its structure being greatly obscured in the dark, bloody extravasation. Its volume was increased, and its middle part was so soft as apparently to be ready to break down upon the slightest roughness in handling.

A pressman in a wholesale clothing house, aged fifty-five years, was found dead on the floor of his bedroom. He was a man of exemplary habits. He went to his work as usual in the morning of the day of his death. At about ten o'clock on that morning, he complained of "cramps," which were so severe as to oblige him to desist from his work, and to lie down; presently, he left the store, saying that he would go home. No one saw him entering his house or going to his room, but between six and half-past six that evening, a friend called to see him, and found him lying dead on the floor of his chamber. The carpet was wet all about him, and an empty tin dipper lay by his knees. The oil-stove was alight on his table, and a teacup containing extract of ginger, with water and sugar, was beside it. The body lay on its left side; it was cold when found, and rigor mortis was fully developed.

When the stomach and liver were lifted, the tissues outside the peritoneum, at each side of the pancreas, were seen to be fully filled with blood. The pancreas itself was larger than normal, and the entire organ was uniformly infiltrated, from its head to its tail, with recently effused blood; the hemorrhage was most marked in the central parts. The extravasations extended about two inches on either side of the pancreas into the surrounding tissue.

A printer,¹ thirty-one years old, of intemperate habits, was seized suddenly with

pain which he referred to the epigastrium. Up to time of his attack he had been in good health. At noon on the day of his death, he ate his usual hearty dinner. The pain of the attack, which began about six o'clock, P. M., was soon followed by nausea and ineffectual attempt to vomit. Presently collapse supervened; the patient was scarcely able to speak; he fell from his chair to the floor; he was evidently in extreme distress. While in this condition he was seen by a physician who prescribed a stimulant (hot brandy) which seemed to produce a temporary reaction and relief. The patient died a few minutes later while in a carriage on his way to the hospital, in less than forty-five minutes after the seizure.

The autopsy was made nineteen hours *postmortem*. The pancreas was normal in size, shape, and position. The organ itself and the retro-peritoneal connective tissue adjacent to it were infiltrated with blood—not to a degree to form a free clot at any point, but involving nearly two-thirds of the body of the organ and spreading above and below to the distance of about an inch in each direction. The hemorrhage was most abundant at about the centre of the pancreas; section of its substance found the interior deeply stained of a dark-red color by the blood effused in the interlobular tissue. A microscopical examination of the pancreas, made by Dr. W. F. Whitney, found the interlobular tissue infiltrated with blood which had permeated among the cells in many places; here the corpuscles were destroyed. The cells themselves were very granular, but osmic acid failed to show the presence of fat in them.

The true pathology of these hemorrhages, why they occur, and how, when occurring, they kill their subject so quickly,—these are still unsettled questions; it is permitted to indulge in speculation touching this important part of the subject, but much more investigation and close anatomical study are needed before demonstration takes the place of guessing. It is clear that the fatal issue does not rest on the hemorrhage alone, the amount of blood lost being generally insignificant; but whether, as Zenker suggests, the mortal blow comes through the sympathetic nerve, the semi-lunar ganglion receiving a sudden and violent shock in consequence of the outflow of blood in its immediate neighborhood; or the death is by general shock because of the rapid hemorrhagic distention of an organ whose tissues

¹ This case is reprinted from the Med. and Surg. Reports, Boston City Hospital, 3d series, 1882, p. 128.

are not readily distensible ; or the hemorrhage is simply an incidental accompaniment, or symptom, of some hitherto unrecognized lesion of the central nervous system ; or nutrition is impaired in the pancreas, and its vessels are weakened, by the growth of fat-tissue and its pressure on the blood-vessels, causing at length a necrosis of the intelobular portions of the glands,—the writer does not undertake to be dogmatic in deciding.

At present, our knowledge of the symptoms is quite limited. They are comprehensively summarized by Prince as follows¹ : "The patient, who has previously been perfectly well, is suddenly taken with illness which terminates his life. . . . When the hemorrhage occurs, the patient may be quietly resting or pursuing his usual occupation. The pain which ushers in the attack is usually very severe and located in the upper part of the abdomen. It steadily increases in severity, is sharp or perhaps colicky in character. It is almost from the first accompanied by nausea and vomiting ; the latter becomes frequent and obstinate, but gives no relief to the pain. The patient soon becomes anxious, restless, and depressed ; he tosses about and only with difficulty can be restrained in bed. The surface is cold, and the forehead is covered with a cold sweat. The pulse is weak, rapid, and sooner or later imperceptible. The abdomen becomes tender, the tenderness being located in the upper part of the abdomen or epigastrium. Tympanites is sometimes marked. The temperature in most cases is either normal or below normal. The bowels are apt to be constipated. These symptoms continue without relief : those which are most striking being the pain, vomiting, anxiousness, restlessness, and the state of collapse into which the patient soon falls."

In this brief memorandum of an interesting and rare form of sudden death, no mention has been made or reference intended concerning any class of cases other than such as may properly come within the designation of pancreatic apoplexy. Other instances in which the patient survives the first shock of injury to the pancreas and dies as the result of secondary processes (gangrene, peritonitis), or in which there are well-marked organic changes, either in the pancreas or organs adjacent to it, to ex-

plain the hemorrhage, are intentionally omitted from present consideration.—*Boston Medical and Surgical Journal*, Oct. 28, 1886.

[The subject of the above paper is of such extreme interest that the Editor of the ANALECTIC feels no hesitancy in adding brief notes of a case which occurred in his practice some years ago. The patient was single, a laborer, and about forty-five years of age. He had been in usual health until 10 A. M., June 23d. At that hour he was seized with nausea, vomiting, and slight diarrhoea. That evening attacks of severe pain and cramps in the abdomen and stomach set in, which increased in frequency and force until the next evening, when I first saw him. He was then suffering severely. Countenance pale and haggard, body emaciated, skin cold. Vomited matter greenish, later blackish. (It did not contain blood corpuscles.) Frequent cramps ran from abdomen into arms and down legs, causing great muscular rigidity and making patient cry out with pain. There was intense thirst. The treatment consisted in the free hypodermic use of morphia.

June 25th.—The condition was unchanged. No movement from the bowels had occurred. A hypodermic injection of ether, 3 iss, raised the temperature from 97.6° to 99° F. The urine was slightly albuminous.

The patient died rather suddenly June 26th.

The pancreas was enlarged and hard. A hard disk-shaped tumor four centimetres in diameter lay seemingly between the head of the pancreas and duodenum, adherent to both. It presented, on section, a hard, blackish surface. On more minute examination the tumor was found to encroach upon the substance of the head of the pancreas, and the microscope proved it unquestionably a hæmatoma].

SOME RECENT CASES OF ABDOMINAL SECTION FOR PERITONITIS.¹

Burchard (T. H.) on Observations on the Medical and Surgical Treatment of Peritonitis.—The patient a male of twenty-five, for three weeks had suffered intense abdominal pain, temperature fluctuating from 101½° to 104½° and was rapidly emaciating. For six or seven days prior

¹ *Boston Medical and Surgical Journal*, vol. cvii., p. 55.

¹ See Mundé, MEDICAL ANALECTIC, April, 1886, p. 182.

to this cellulitis set in in the abdominal walls. His abdomen had become tympanitic and the pain more diffused. For forty-eight hours there had been excessive hic-cough and frequent retching of green mucus. On night of August 19th he took surreptitiously four compound cathartic pills. At 8 o'clock on the morning of the 20th I saw him.

He was lying semi-moribund, with legs flexed. Abdomen moderately distended, and breathing thirty-two times a minute; his pulse was 120 and his temperature 102 $\frac{1}{2}$.

Examination showed an indurated condition of the tissues of the hypogastric and left hypochondriac regions, the integument being somewhat erysipelatous in appearance. The indurated mass appeared to involve the entire thickness of the abdominal wall, and was about six by seven inches in diameter.

An incision was made in the median line (deep-seated fluctuation appearing more distinct there, although the principal part of the induration was slightly to the left), and extended from an inch below the ensiform cartilage downward to the umbilicus.

Just as I reached the linea alba, at a depth of fully two and one half inches, something was felt to suddenly give way beneath the hand, as though an abscess had burst within the peritoneal cavity. Although it was thought the patient would certainly die, it was determined that what little chance he had depended upon giving vent to the pus anteriorly. The incision was extended through the linea alba and into the great omentum, which was adherent to the abdominal wall and the seat of the abscess.

Omentum, intestines, and mesentery were matted together in one inseparable mass, and pus of an extremely fetid odor welled from the cavity of the belly. I should say fully a quart and a pint escaped.

The patient grew rapidly weaker. Inhalations of ammonia and amyl and hypodermics of whiskey were freely used. Warm milk punch was injected *per rectum*.

The patient rallying, the incision was prolonged below the umbilicus, so as to get beneath the abscess, and so thoroughly wash out the abdominal cavity.

Fully a gallon of warm carbolyzed water (three per cent.) was thrown gently in

among the matted coils of the intestines. The walls of the abscess cavity were sparingly dusted with iodoform, and two rubber drainage-tubes were inserted. The upper and lower ends of incision were sutured with silver wire, the median portion above the umbilicus being purposely left open to permit of free drainage.

A pad of oakum, wrung out in sol. hydrarg. bichlor. 1-1,000, was placed over the entire wound and a light bandage applied.

The patient rallied poorly from operation. Hiccough and vomiting continued the entire afternoon. Pulse most of the time being scarcely perceptible. 2 P.M.—P. 140, T. 103 $\frac{3}{4}$ °, R. 26. 5 P.M.—P. 136, T. 104 $\frac{3}{4}$ °, R. 30.

Cracked ice and small portions of champagne frappé were given by the mouth, and enemas of beef peptinoids and milk punch were given each four hours. Morphine, atropia, and digitalis, were given hypodermically—p.r.n. Ice coil on abdomen.

About the last of September was in excellent condition. Most diligent inquiry has failed in finding his whereabouts since.

If the 39 cases with 23 recoveries quoted by the author teach anything, they teach not merely the feasibility of such operations, but more than that, they give legitimate ground for encouragement in fully sixty per cent. of these otherwise hopeless cases.—*N. Y. Med. Four.*, Aug. 15, 1885.

Hunter (J. B.) on a Successful Case of Secondary Operation for Acute Peritonitis, Following Ovariectomy.

Dr. Hunter reports the case of a patient from whom he removed a small tubo-ovarian cyst on November 11th. Soon after the operation she developed peritonitis, as evidenced by general tenderness over the abdomen, marked tympanites, rapid, wiry pulse, and elevation of temperature. Her condition became so serious that he resolved as a last resort to re-open the abdomen. This was done at twelve o'clock on the third night following the operation. The peritoneal wound had been closed separately with catgut; the edges were firmly united. A small quantity of blood serum was found in the cavity. A glass drainage-tube was inserted, and the cavity was irrigated thrice daily with warm carbolyzed water. The patient began to improve at once, the tenderness and tympanites disappeared, and she was then convalescing. The marked improvement was entirely out

of proportion to the small amount of fluid removed.—*Am. Four. Obstet.*, etc., Jan., 1886.

Elder (G.) on Abdominal Section in Acute Peritonitis.—Mrs. T—, aged twenty-four, was admitted into the hospital on May 8, 1886, suffering from acute peritonitis. Patient's health had never been robust; but until the present illness she had never had any definite complaint. Menstruation began at the age of sixteen, with difficulty, and since the flow has been scanty, painful and irregular. There had never been any inter-menstrual discharge till a month before admission. Married nine months ago; patient's health was very good for the first three months. When carrying a child one day she was seized with severe pelvic pains, faintness, nausea, and, as she expresses it, a feeling "as if something in her inside had given way." For the succeeding three months getting about was difficult and painful from a constant feeling of bearing down, and pain in left groin. During this period she had twelve epileptiform fits, to which she had never before been subject, and several acute inflammatory attacks. The pelvic pains became so constant that for the three months preceding admission she had never left her bed, and Dr. Bunnie, under whose care she was, referred her to me for abdominal exploration.

On admission, abdomen was found distended, exquisitely tender, and tympanitic. The vaginal examination showed the pelvic floor to be depressed, the uterus pressed against pubis and fixed, and the post-uterine space occupied by a hard, irregularly surfaced, tender mass—objective. There were all the symptoms of suppuration in the type of temperature, stomachic irritability, profuse sweats, the rapid emaciation which the patient had undergone, and rigors. As menstruation was daily expected, palliative treatment was alone employed until May 16th, when the flow had passed off. It had been exceedingly scanty, preceded and accompanied by a very alarming exacerbation of her symptoms. Large and frequently repeated doses of morphia failed to give any but the most temporary relief, and the temperature ran up to 103.6° Fahrenheit. Under ether, an abdominal section was made, when evidence was found in the matting together of the bowels and deep injection of the peritoneum, of extensive and very acute inflammatory action. The pelvic organs were so matted together

by firm exudation that it was impossible to make out their relative positions, and in the attempt to do so a large feculent swelling abscess, situated at pelvic brim, and partially covered by sigmoid flexure, was broken into. The purulent contents were removed as well as possible by sponging and irrigation with plain water. This necessarily took some little time, and patient's condition becoming at this juncture very grave, I was compelled to bring the operation to a close without further trying to disentangle and make out the condition of the pelvic viscera. A good-sized drainage-tube was left in position, and the usual dry dressings applied.

The note on the 19th runs as follows: On the 17th the patient's condition was quite as serious as before the operation; the abdominal distension increased; the temperature ran up, and the expression on the face was anxious and pinched. Free purgation by means of a saline aperient as if by magic altered the complexion of matters, and the patient has given me but little trouble since. For the first forty-eight hours the fluid withdrawn from the tube was bloody serum, and not offensive. Subsequently it became purulent and feculent in odor. Every four hours the nurse emptied the tube and washed the cavity out with one in sixty carbolic lotion.

On May 20th a one in fifty boro-glyceride solution was used for cleansing the cavity, as carboloria, as indicated in the tint of the urine, had become established, although patient's improvement had not thereby become interfered with. It is needless for me to give my daily notes of the case. The patient's progress towards health was somewhat slow, and not quite uninterrupted. Now and again there were rises of temperature, which invariably preceded an increased flow of pus, as if some fresh abscess had burst; but as time wore on the discharge became very trifling, and shorter and shorter glass tubes were used, until on July 17th, so superficial had the wound become, their use was dispensed with.

On July 37th the patient for the first time got up, and the day after began to walk about the ward. Her temperature for a month had been practically normal, and she was looking plump and well.

On July 21st she left the hospital with only a narrow sinus remaining, where the drainage-tubes had been. In this she was

shown how to pass in and keep in position a narrow rubber drainage-tube.—*Provincial Med. Four.*, Sept. 1, 1886.

Studensky on Laparotomy in Suppurative Peritonitis.—In the *Khirurgichesky Vestnik*, Nov., 1885, p. 711, Prof. N. Studensky, of Kazan, reports the case of a girl, aged twelve, who, when first seen on the nineteenth day of enteric fever, presented all the usual symptoms of purulent effusion into the peritoneal cavity. Aspiration (by means of Potain's apparatus) removed six fluid pounds of pus, but no improvement followed. Four days later, the fluid being reaccumulated, the author made an incision, about two inches long, into the abdominal wall below the navel; more than six fluid pounds of benign, odorless pus escaped through the wound. The peritoneal cavity was washed out with a four-per-cent. solution of boro-glyceride; a drainage-tube being inserted, the abdominal wound was closed by sutures, and covered with an antiseptic dressing. The latter was changed twice daily for five or six days after the operation, the abdominal cavity being washed with boro-glyceride on each occasion. Though no pus was flowing from the wound, fever remained still high, and the patient's state grew worse. The girl complained of pain in the splenic region, where dulness was detected on percussion, but no pus could be obtained on exploratory puncture. A month later, a quantity of offensive pus suddenly appeared under the dressing. An examination led the author to conclude that the discharge proceeded from the neighborhood of the spleen, where a sacculated abscess had probably existed at the time of laparotomy. The patient's temperature immediately sank to the normal level, but three days later a sharp attack of abdominal erysipelas with high fever occurred, which still further weakened the unlucky girl, and delayed her recovery. She got up only three and a half months after the operation. At present, however (about nine months after laparotomy), she enjoys good health, having spent several months in the country.—*London Med. Record*, Feb. 15, 1886.

Summers (J. E.) on Peritonitis Following Herniotomy Treated by Irrigation and Drainage of the Abdominal Cavity.—Mrs. T—, a robust German, married, aged twenty-seven, entered the Child's Hospital, August 2d, for relief from a rather large femoral hernia

on the right side, which she had had for three and one half years, and which for five days had been irreducible. There were no symptoms of strangulation; only discomfort was complained of. As the woman was anxious to be cured of her infirmity, I operated on the third day after her admission, with the intention of relieving the constriction, and then doing an operation for the radical cure. The sac, on account of its thickened and inflamed condition, was with difficulty recognizable as such. It was opened, and a large piece of omentum, also inflamed, was cut off in the usual way, carbolized silk being used for ligation. No attempt at closing the canal being deemed advisable, the ring was dilated by a blunt instrument passed in along the inner border of the canal, internal to the sac, and upward traction made. (A conical urethral sound is sometimes advantageously used, as this was, in strangulated herniæ, instead of the knife.)

The sac was then cut short, and its circumference (the inner two thirds) united with catgut to the edge of the femoral ring; the external segment was fixed by passing the needle through the tissues and skin covering it. A drainage-tube was introduced through the ring, the wound irrigated with a warm solution of bichloride of mercury, 1-1,000, and antiseptic dressings applied. Twenty-four hours after the operation a general peritonitis developed. The abdominal cavity was well irrigated twice daily with a warm solution of 1-5,000 bichloride of mercury for three days, when, a diarrhœa setting in, the bichloride solution was replaced by a one-per-cent. solution of carbolic acid, and the diarrhœa subsided. At times, when irrigating, the drainage-tube, more than ten inches in length, was replaced by a 22 F. nearly straight metal tube, passed well up into the abdominal cavity. Some fluid always remained behind, but it came away in the dressings, drainage being favored by position. At each irrigation pus and fibrine, in quantities sufficient to make a heavy cloud in the vessel, were removed. After irrigation there was always a noticeable fall of temperature and a better general condition of the patient. Dry cold by means of a Leiter's coil, morphine subcutaneously in quantities sufficient to control *all* pain, and a milk diet, constituted the rest of the treatment. The patient's convalescence was interrupted by a sharp attack of cellulitis

litis on the left side, but this was soon brought under control by the use of long-continued hot-water irrigation of the vagina, and morphine subcutaneously. On the fourteenth day the temperature had reached the normal point; it had varied from 102° to 104° F. Shorter and smaller drainage-tubes were gradually substituted, a change being made daily for four or five days, when they were withdrawn altogether; the wound contracted slowly, but is now completely healed. Whether the peritonitis was the result of a faulty antiseptic, or directly dependent upon the operative procedure, matters little. The interest in the case centres in the treatment, which in principle is the same as in those cases of suppurative peritonitis which have been treated by abdominal section and drainage.—*N. Y. Med. Record*, Nov. 27, 1886.

THERAPEUTICS.

Some Recent Contributions to our Knowledge of Acetanilide or Antifibrine.—Lépine¹ has used the drug experimentally on animals. Given to guinea-pigs hypodermically in concentrated, warm solution, in the proportion of thirty centigrammes of the drug to one kilogramme weight of the animal, it distinctly lowers the central and peripheral temperature, slows the heart a little, and produces a state of inertia which lasts some hours. Double this dose kills in a few hours. In the dog the same proportionate dose produces the same effect. The blood is of a brownish blue tint, the corpuscles appear of a normal shape, and the fibrine not augmented, perhaps diminished.

Large doses appear to slow the heart of frogs, and provoke a double ventricular diastole. The auricles cease to contract and become distended with blood. When at the expiration of several hours the heart stops, it can be excited to renewed contraction by atropia. In the heart, detached from the body, a circulating fluid containing acetanilide seems to increase its energy. It impairs the excitability of peripheral motor nerves and the conductivity of sensory nerves.

In the dog and guinea-pig it diminishes the secretion of urine; in neither does it produce diarrhoea, nor in the dog vomiting.

¹ *Lyon Médicale*, Oct. 31, 1886.

The author's experiences with the drug in typhoid cases will be spoken of later. He has found that in one or two doses of ten grains it relieves the fulgurating as well as the gastric pains of ataxics. He considers it a better medicine than antipyrine, because it does not produce any semi-intoxicating effects.

Mouisset, interne in the service of M. Lépine, publishes the results of the use of acetanilide in typhoid fever.²

Seven cases in all were treated, and their symptoms were very carefully noted. In all cases the urine seemed to be lessened. Three of the patients became cyanosed after large doses, but this disturbance passed off after twenty four hours, and during its continuance gave the patient no discomfort. The facies of the patients was, as a general thing, excellent and the tongue moist. The effect produced by each dose of ten grains appeared in one half or one hour. At this time the temperature fell a few tenths of a degree, while the patient complained of hot flashes which lasted never longer than ten minutes, when a profuse sweat and fall of temperature occurred. Some patients, during the hours of apyrexia, complained of cold and chills, but all unpleasant sensations were very transitory.

The drug seemed to act more energetically than the cold bath and in one half the doses of antipyrine. Repetition of the dose seems to produce a sort of tolerance of the drug. As a general rule, ten grains repeated several times during the day will suffice, but thirty grains may be given with impunity. An efficient dose at least one hour before the expected rise of temperature exerts the best effect. Complete apyrexia can be produced without danger, collapse having never been seen; the pulse, while slowed, is in no wise weakened, but on the other hand often strengthened.

J. Müller³ has studied the physiological effects of the drug chiefly from a surgical standpoint and his deductions are very valuable. He has had experience of its use in twenty-one cases: tuberculous affections of bones and joints, twelve cases; fracture of leg, subsequent gangrene and amputation of the thigh, one case; gunshot wound of thigh, one case; typhoid fever,

² Note upon the employment of acetanilide in the treatment of typhoid fever.—*Lyon Médicale*, Nov. 7, 1886.

³ Antifibrine, a new antipyretic.—*Gaz. Méd. de Strasbourg*, Nov. 1, 1886.

one case ; pneumonia, three cases ; pulmonary tuberculosis, one case ; and pleurisy, one case.

In all he has given 120 doses of the drug, viz., 68 of four grains, 40 of ten grains, 10 of twelve grains, and 2 of fifteen grains. He has never given more than twenty-five grains in twenty-four hours. According to Müller the antipyretic effect of antifibrine rarely fails. It commences generally about an hour after the administration, attains its maximum at the end of the third hour, and persists from three to ten hours. During the first hour there is generally a reddening of the skin and slight perspiration. At the same time there is lowering of the temperature, a slowing of the pulse, and rise of arterial tension. It produces no digestive disturbances. It seems to exert less power over surgical than over internal disorders. In conclusion he thinks that it has all the advantages and none of the disadvantages of antipyrine.

Casimir (H.) on the Influence of Antipyrine on the Secretion of Urine.

—After large intravenous doses of antipyrine the arterial tension rises, the kidney contracts, and the urine diminishes in amount during the first half hour or hour, to become again normal. Clinically forty-five to seventy-five grains are sufficient to produce the desired effect. Given in small repeated doses, it seems to cause no appreciable change in the amount of urine or proportion of urea.—*Lyon Medical*, Nov. 14, 1886.

Mays (T. J.) on the Nasal Reflex : A New Method for Determining the Local Sensory Action of Drugs. A Preliminary Note.

—It is not, as it is generally believed to be, comparatively easy to distinguish between the local sensory and motor action of drugs ; and it becomes especially difficult when, in other respects, the action of two drugs is quite analogous. The methods hitherto in use of applying a solution of the drug to the skin of a frog, and then testing the reflex irritability of the same ; or of immersing one leg in the solution and then comparing its reflex sensibility with the other by means of mechanical, thermal, or electric stimulation, do not always yield satisfactory results. Hence, in the hope of adding something that may facilitate research in this new field of medicine, I submit description of a method which is both simple and reliable.

Five or six drops of a one or two per cent. solution of the drug to be tested are slowly dropped, either from a dropper, or from a hypodermatic syringe, into one nostril of a good-sized frog at intervals of from three to five minutes, and the nasal reflex is tested by introducing the end of a very light wire (such as is used to keep a hypodermatic needle pervious) into the nostril under the influence of the drug, as well as into its fellow on the opposite side, and the effects compared. The nasal reflex is extremely sensitive, and shows the slightest interference with its integrity. As soon as the wire comes in contact with the inner surface of the nostril, in its normal state the frog will wink and wince, and make efforts to brush the offending body away with the front foot ; while after the instillation of ten or fifteen drops of a drug solution which has the power of obtunding sensibility, the frog will not only allow the wire to remain in the nostril, but will endure considerable boring with it before he evinces the slightest pain. After the nostril is fully under the influence of the drug, reflex sensibility is annihilated on that side, while the sensation of the opposite nostril remains intact.

This method, which I have called the nasal-reflex method, has been used by me in determining the difference between the local action of theine and of caffeine, and this, I think, is a sufficient guaranty of its delicacy and accuracy.—*Medical News*, Nov. 20, 1886.

Marcy (H. O.) on Wool for Surgical Use.

—Absorbent cotton, as is well known, is the pure fibre, freed from the vegetable oil which, in an extremely thin layer, covers each filament. For certain surgical purposes, this is unequalled by any other material. However, the fibres mat together in such a way, that the secretions from wounds permeate the dressing imperfectly, and drying, cause an incrustation which prevents the escape of fluids and thus retards rapid repair, even in aseptic wounds. More recently, wool fibre has been recommended and received the approval of a considerable number of prominent surgeons. The wools which I have used have been so imperfectly prepared that I have found them objectionable. The specimens which merit your commendation are clean, free from oil, and therefore absorbent, although in a less degree than cotton, and aseptic. The fibre is carefully

carded and is separable into sheets as desired, and impregnated with mercuric bichloride 1-2,000. As a vaginal packing, by its elasticity, it often aids materially in the retention of a replaced uterus, while it is more comfortable than the cotton tampon, and more easily permeated by fluids. Because of its greater porosity, it admits of a much freer drainage, thus rendering it especially adapted as a dressing for wounds, fitting irregularities, and much less liable to displacement. As a padding for splints, especially with fixed dressings, *e. g.*, plaster, it leaves little to be desired. Wool receives and retains the various antiseptics better than cotton, particularly iodoform, which is distributed through it better than through cotton, even when woven into the thinnest gauze fabrics. Wool dressings, when properly prepared, deserve to receive a permanent place in the armamentarium of the modern surgeon.—*Four. Am. Med. Ass'n*, Nov. 6, 1886.

Coggin (D.) on Carded vs. Absorbent Cotton.—During the last ten years, the writer has used cotton-batting as it comes from the card-room as a light, protective dressing over the eye after the extraction of cataract. Unlike absorbent cotton, it retains its elasticity and does not become sodden and hard when wet, thus acting like a poultice, as does the patented article, neither is it irritating, as wool may be. Because of these qualities it would seem to be well-adapted for vaginal tampons as well as for the ordinary surgical use.

It can be readily sterilized by subjecting it to a high temperature, but this may be deemed hardly necessary, considering that the cotton comes into contact only with machinery from the time the balls are picked until the cotton leaves the carding-machine.

As the cheapest is sometimes the best, it may be stated that cotton mills will furnish carded cotton, in rolls, for fifteen cents per pound, while absorbent cotton costs nearly four times as much.—*Boston. Med. and Surg. Jour.*, Nov. 25, 1886.

Ewing (A. C.) on Boracic Acid as a Local Anæsthetic.—George S., a railroad employé, came to my office, October 19, 1886, with a deep suppurating wound in palm of left hand, having two weeks prior inflicted the injury by being thrown forcibly against a moderately sharp instrument, cutting, or rather tearing its way

through to the bones. He was suffering excruciatingly; his hand being in a semi-flexed position from involuntary and to some extent voluntary contraction. Upon taking hold of the hand and making but a slight effort to straighten his fingers, he fairly cried out from pain. Taking about thirty grains of powdered boracic acid and dissolving it in a half ounce of water, I saturated a pad of absorbent lint in the solution and applied it directly to the wound, securing it by means of a splint and bandage. I directed him to return on the next day. In the morning I was agreeably surprised to find that he had not suffered in the least during the night. I took off the splint and found, by using considerable force, that I could almost entirely overcome the contracted tendons and fascia, the wound gaping open as I did so, but without having given him the least inconvenience; in fact, he himself pulled open the wound to "see how deep" it was, squeezing out some pent-up pus, and in doing so felt no more pain than if he were squeezing healthy tissue. I am still using the same dressing once daily, because of its excellent antiseptic qualities, and the wound is healing rapidly by granulation.—*Am. Pract. and News*, Nov. 13, 1886.

Lloyd (J. H.) on Electrolysis; with Special Reference to its Trial in Inflammatory Products in the Female Pelvis.—The great objection, in my mind, to the theory of true electrolysis in gynecological cases is the resistance of the mucous membrane and the diffusion of the current; in other words, the weakening and loss of current strength before it actually reaches the neoplasm. This objection does not hold when galvano-puncture is used, as in aneurism and the cure of moles and nævi; also in the removal of hairs, or in subcutaneous treatment of goitre, as the writer has himself practised it. But in strictures of the male urethra, and in these cases of cellulosic deposit in the female pelvis, I do not see how galvano-puncture could be well practised, certainly not safely in the great majority of cases. However, in the light of clinical results, we are justified in continuing a procedure even if it does not harmonize with some theoretical data. I have always insisted upon the necessity of measuring the current strength, if we design to place our observations on as scientific a basis as possible, and as far removed from the haphazard empiricism which is too characteris-

tic of electro-therapeutics. I have often thought that there might be some analogy between the action of galvanism, under these circumstances, and counter-irritation. Any one who has felt the persistent soreness produced on the skin of the back of the hand by a strong current, with a tendency to desquamation, or even vesication, could readily believe in this resemblance. We have no very good explanation how counter-irritation acts, but still we use it successfully to promote absorption under a great variety of conditions. It seems possible that a strong current might produce counter-irritation upon the vaginal mucous membrane and promote absorption of inflammatory products within.

The procedure in intra-vaginal galvanism is, no doubt, open to the objection of being tedious, and requiring frequent repetition, which is, in a measure, compensated by its being painless and less disagreeable to the patient than some other methods of treatment; while it seems to offer more relief to some of the symptoms than other plans. Among the special effects noted in these cases was the promotion of menstruation. The current-strength used did not tend to re-excite inflammation, except in one case where, however, the evidence was not entirely conclusive.—*Four. Am. Med. Ass'n*, Nov. 27, 1886.

Defresne (T. H.) on the Fate of Pancreatine after Being Taken into the Stomach.—The author, from extended experimentation on animals, concludes as follows: When pancreatine meets the gastric juice it is absorbed *in situ*, and passes under the form of a zymogen into the circulation.

In the liver it becomes a hepatic ferment capable of transforming glycogen into sugar; in the parotid it becomes a salivary ferment capable of making sugar of starch in the mouth; while in the spleen it becomes a ferment which, transmitted to the pancreas, communicates to the juice of that gland the property of turning, in the duodenum, starch into sugar. These experiments are corroborated by clinical experience, it being found that the administration of ten or fifteen grains of pancreatine at the commencement of a meal increases both salivary and pancreatic secretions.—*L'Union Méd.*, Oct. 21, 1886.

Simon (R. M.) on the Use of Ice-Water Enemata in the Treatment of Diarrhœa.—Ice should be dissolved in

water, and from two to three ounces injected. The immediate effect is commonly a quiet sleep and improvement in the collapsed condition. Subsequently the effect upon the diarrhœa is also good, and it will rarely be found necessary to repeat the enema. Internal treatment may often have to be continued, but I have no doubt that the life of many a collapsed child has been saved in this way. No reference is to be found in Ringer's *Therapeutics* to this method of treatment, but doubtless it is known to many of the older practitioners, though its disuse has led to its being unknown to the younger members of the profession. It appears probable that it acts by an astringent effect on the loaded vessels of the intestines, and so at the same time warming the exterior of the body, and diminishing the materials for the intestinal flux.

It has sometimes been found expedient to give a few drops of brandy about the time of injection; but, in my experience, no depression or bad effect has ever resulted.—*Brit. Med. Jour.*, Oct. 30, 1886.

Chenery (E.)—Is it Safe to Give Pepsin Preparations when Lesions of the Mucous Membrane Exist?—GENTLEMEN,—At the time I read the article on pepsin in the September number of the *Therapeutic Gazette*, I was treating what I and my consulting physician considered to be a case of septicæmia following on a dysentery, in which pepsin had been used. This case I will briefly state.

The man was in his prime, temperate, industrious. He came down with dysentery, which yielded in ten or twelve days, with no very extraordinary symptoms. His pulse and temperature subsided, and appetite, with normal discharges, returned. During the last of his sickness preparations of milk and of egg were frequently given in connection with a preparation of pepsin, with no thought of any danger. When convalescence was so satisfactory, and every symptom favorable for a speedy recovery, on the fourteenth day he was suddenly taken worse,—a chill, pulse 125, temperature 104°, pain in neck, with rapidly increasing purple swelling in left parotid and the surrounding tissues. To this swelling tincture of iodine was applied and proved advantageous in relieving and reducing the swelling, though not wholly saving from suppuration. An active diarrhœa began with the relapse, and continued to the last,

hypodermic doses of morphine and belladonna alone seeming to be of any benefit. After three or four days there were some symptoms of peritonitis, though not strongly marked. The mind remained clear, with slight exceptions, till the last, when death took place, twenty-one days from the beginning of the sickness, or seven days after relapse.

What was the matter? Why this setback, or, rather, this new series of symptoms? He was so carefully watched and treated we know of nothing, unless the pepsin had entered the circulation through the ulcerated bowels and poisoned the blood. Of this I had no idea till I read Dr. Wood's article. Is it possible pepsin is dangerous when conditions exist favorable to its absorption into the circulation? If so, we have a hint to the possible cause of the frequent cases of blood-poisoning in the modern wholesale use of the digestive ferments. It is, indeed, time that the whole subject of these ferments was gone over and the danger pointed out, if danger there be, and the line of demarcation sharply drawn between the cases when their use is safe and when it is not.—*Therap. Gaz.*, Nov. 15, 1886.

Holt (L. E.) on Cocaine in Whooping-Cough—Is its Use Safe in Young Children?—His conclusions are, that cocaine must be used with great caution in young children under all circumstances. The spray is never to be recommended, since an uncertain quantity is given. Solutions stronger than four per cent. should not be used by swab or pencil in children under two years, and in older ones only with great caution. The same remark applies to the rectum as well as to the throat. In the cases where it was tried he has failed to see any notable benefit in the disease. Chloral seemed to be of very decided value in controlling symptoms due to cocaine, and he would suggest a more extended trial of it in this direction.—*N. Y. Med. Jour.*, Oct. 23, 1886.

Major (G. W.) on Submucous Injection of Lactic Acid for the Cure of the Early Stage of Laryngeal Phthisis.—The author, in a short paper, related his experience of lactic acid as a local application in the ulcerative stage of laryngeal phthisis. He said that it was probably the most speedy and most efficacious plan of treatment yet introduced. Ulcerations healed under it most kindly, and tubercu-

lous deposits underwent absorption more rapidly than by any other means. But it was of lactic acid employed as a submucous injection into the substance of the laryngeal tissues that he wished to speak. In the early swellings and oedemata it had rendered very remarkable results in Dr. Krause's (Berlin) hands. Dr. Major had the privilege, during the past summer, of seeing many of Dr. Krause's cases, and he was happy to be able to endorse all that had been maintained by Dr. Theodore Herring, of Warsaw, and Dr. Krause in its favor when used as an injection. Dr. Major employed a twenty- to thirty-per-cent. solution of the remedy, and inserted at one sitting from fifteen to twenty minims of the liquid. Very trifling pain followed, and but little after-irritation was induced. The swellings disappeared in periods varying from twenty to thirty days, and ulcerative changes were avoided. A case undergoing treatment by injection was exhibited to the members of the Society, and the result was deemed very satisfactory and encouraging. Dr. Herring's syringe, as modified by Krause, was the instrument employed for the injections. Altogether, Dr. Major regarded the lactic-acid treatment of laryngeal tuberculosis as the greatest advance yet made in the treatment of this disease, and looked forward to a great future for it.—*Med. News*, Nov. 13, 1886.

Weiss (L.) on the Abortive Treatment of Phlegmon, Especially of the Fingers, by Resorcin Inoculation.—A number of shallow, parallel incisions, about one fourth inch long, are made into and around the lesion, through the integument. Cocaine is used in twenty-per-cent. solution. The slight operation is scarcely felt by the patient. A ten-per-cent. resorcin-lanoline salve is now applied, in a very thick layer, to the scarifications. The entire finger is then enveloped in a strip of lint, which in turn is thoroughly saturated with the salve; over this a layer of gutta-percha tissue, absorbent cotton, and a moist gauze bandage are applied in the order mentioned. The hand is then suspended in a sling and the finger dressed twice daily.

That the quick subsidence of the threatening symptoms in such a case is distinctly due to the inoculation and subsequent rapid absorption of resorcin, I believe to be beyond doubt. The application of the drug to the intact integument would not act

promptly enough to prevent the rapid absorption of the infectious material. The introduction of the resorcin into the rete mucosum, or into the superficial layers of the cutis, as I advise it, must necessarily hasten its absorption and have a destructive effect on the infectious matter, since the drug is forced into the open mouths of the lymph- and blood-capillaries. Nevertheless, the epidermic use of resorcin along the track of the inflamed lymph-canals is of an importance not to be underrated, and should be made use of in every case in which lymphangitis exists.

Resorcin used in the manner described will be accepted as an effective remedy in all furuncular and phlegmonous inflammations; it aborts the inflammation, if used in time, by destroying the germ locally, as well as in the lymph-canals leading from the point of infection, at the same time acting as an anæsthetic on the terminal filaments of the sensitive nerves. This is accomplished in the surest way by the method of scarification and continuous impregnation.—*N. Y. Med. Record*, Nov. 27, 1886.

Chace (H. P.) on Resorcin in Eczema.—In the April number of the *Gazette* I saw a report from Dr. Wyss, taken from the *Fortschritt*, of his use of this remedy. I had at that time upon my list two cases of general eczema that had defied the whole range of eczema remedies. One case was about six months' standing and the other four months'. Both persons had been subject to this disease for years, at times. One of my patients having had it several years ago continuously for fifteen months was seen by two New York City specialists, and finally went to Europe and consulted the famous Erasmus Wilson. I go into this detail to show that the case was of the obstinate type. The attack for which I was attending him had lasted about four months. The eruption extended over every part of the body, except from the knees down. The scrotum was swollen to three times its natural size; the face and eyes swollen very much, and, as may be imagined, the itching and burning was intolerable.

My other case was but a repetition of the one I have described, except that the eruption completely covered the body at times, and would then get a little better in some places, but in a short time returning with renewed force.

After reading the article referred to, I immediately ordered from my druggist the following:

℞ Resorcin 3 ii.
Glycerine q. s. ʒ ii. M.

SIG.—Apply with camel's-hair pencil morning and evening.

I had very little faith that my patients would receive any benefit from it, but, to my great surprise, the remedy worked like magic. Improvement was marked in forty-eight hours, and in one week both of my patients were attending to business, and are both at this writing perfectly well. Since then I have had sent me one other case of general eczema, and six cases that were localized, the remedy proving just as efficacious in every instance except one. In one case the lady could not follow my directions about keeping her hands out of water. In this case the hands are very much better, but not yet entirely healed.—*Therap. Gaz.*, Nov. 15, 1886.

Wyss on Resorcin in the Treatment of Eczema.—Dr. A. Wyss, of Geneva, communicates an original paper on this subject in *Der Fortschritt* of Jan. 5, 1886.

He employs the drug in the form of a powder with rice-meal, Venetian talc, etc.; e.g.: rice-meal, 3vj.; resorcin, 3ss. to 3jss. The only drawback of these preparations in respect of preservation consists in the great hygroscopic property of resorcine. He also used it as a solution in oil (which, however, dissolves but a comparatively small quantity of resorcin): resorcin, 15½ grains to 3ss.; olive oil and almond oil, of each 3vjss.; also as a solution in glycerine (5 in 20) and water; and in the form of an ointment (3 to 5 in 20 parts of yellowish vaseline or lard). These preparations have been principally employed in eczema of the nose, of the face, of the ears, and in two cases of eczema of the extremities.

The following are the general effects of this remedy. The preparations of resorcin, especially the powders, when applied in eczema during the stage of discharge, produce, in consequence of the property of resorcin to coagulate the albumen of the secretion, a protective and disinfectant covering, which, without giving rise to irritation, stimulates the formation of epidermis, allaying at the same time both pain and itching.

During the stage of desquamation, the ointment or the glycerine of resorcin accelerates the cicatrization of the still existing fissures of the skin. The new epidermis, stimulated by the action of resorcin, more rapidly and easily reforms, and gains its normal thickness and firmness. Several cases may serve as instances.

1. A lady, aged thirty, had been suffering for more than a year from eczema of the nose. After having undergone at Neufchâtel a great variety of treatment without any benefit, she consulted the author. The eczema covered the right nostril, and was in the second stage, with abundant discharge and dried-up scabs; it blocked up the orifice of the nostril, which was fissured at the angles. Swelling and redness extended over the top of the nose. The application of different powders and ointments (of oxide of zinc, boracic acid, naphthol, etc.) proved inert. Almost every week a new eczematous eruption formed, frequently spreading into the other nostril. On Dec. 1st, treatment by daily swabbing with glycerine and resorcin commenced. The discharge was entirely arrested after ten days. Swabbing with resorcinized vaseline was continued for another week. There was no treatment from Dec. 18th to 22d. When the patient left on Dec. 24th, no new eruptions or scabs had formed, and the swelling and hyperæmia had disappeared.

2. A man, aged twenty-six, had acute eczema of the orifice of the left nostril. He had been an out-door patient for more than one month, during which the eczema increased. The whole left nostril presented a discharging surface. There was painful swelling of the surrounding skin; no catarrh. Different desiccating powders failed to give relief. Once daily a kind of emulsion of resorcin with glycerine, prepared every time immediately before use, was applied. Three days after, a large portion of the discharging surface was covered with a delicate epithelial layer. After one week's treatment, the whole nostril was healed. A few days later a new eruption appeared on the upper lip. Regular application of glycerine with resorcin was used. Desiccation took place after three days. The cure was complete.

3. A child, aged three years, had impetiginous eczema, covering almost the whole face for three weeks; according to the mother's statement, it still continued

spreading. The dry scabs were removed, and the diseased places swabbed with glycerine and resorcin. On the next day but one, the greater part of the scabs had dropped off, leaving a dry surface invested with a red epithelial layer. Three more swabbings, applied every other day, produced complete cure.

It is possible that, in impetiginous eczema, which Kaposi and others declare to be of parasitic nature, resorcine acts also as an antiparasitic remedy.

4. A patient, aged twelve, had been afflicted for several years with suppurative otitis of the right meatus, following diphtheria. From time to time eruptions of eczema appeared, involving the auditory canal and the auricle. Four more or less intense eruptions were observed during the last twelve months, when the patient was under treatment in the hospital. Each of these lasted at least a fortnight, only yielding to the daily application of boracic acid and dry dressing. A new eruption showed itself on Dec. 5th. The whole auricle presented a discharging surface, which was dressed with resorcin and vaseline (1 : 4), whereby a whitish layer was produced, covering the whole diseased surface. After three days the secretion had ceased, and the auricle was covered with dry epithelium.

5. A man, aged forty-two, suffering from chronic eczema of both lower extremities, which presented all the different stages of the complaint, had been under the author's care during twelve months previously, during which the eruption on the forehead, the body, and the upper extremities entirely disappeared after the use of a naphthal ointment. The itching was so intolerable that the patient could not refrain from frequently scratching, whereby in every instance a new crop of eczema was called forth on places where the eruption already reached the stage of desquamation. After a month's use of resorcinized vaseline, no new eruption of the eczema had taken place since, and the remnants of the former eruptions betrayed themselves only by induration and patches of pigmentation of the skin. Having no more itching, the patient no longer irritated his skin by scratching. The author explains this effect by the action of the resorcin, which, by coagulating the albumen of the exudation, closed the fissures, and invested the discharging and inflamed places with a protective covering.

These cases may suffice to demonstrate the rapid curative effects of resorcin. Dr. Wyss treated, up to the close of last year, more than thirty cases with resorcin, and invariably observed the same results, of which especially the tendency to rapid healing is noteworthy. None of the patients treated in that manner showed symptoms of intoxication or renal irritation, as had been observed after the internal use of doses above three grammes (forty-six grains). The stages of eczema in which resorcin proves most beneficial are that of exudation, when the congestion and inflammation of the skin already have abated, and that of desiccation, when generally there are still some discharging places and fissures underneath and between the scabs and scales.—*London Med. Record*, Feb. 15, 1886.

The Means of Preventing the Deterioration of Rubber Apparatus.—Esmarch's bandages should be taken out of the boxes at least once a month, unrolled, and manipulated. Drainage-tubes should be hung up in a cool place, or soaked in a non-putrescible fluid. All objects made of rubber should be kept in a cool, damp place, at a constant temperature, and sheltered from the light and frost. Seeing that in many cases these conditions cannot be complied with, it is recommended that the bandages should be made of pure leaf rubber, in lieu of the elastic tissue usually employed. The purer the rubber the less readily does it undergo these structural alterations, and the lighter it weighs; its weight is therefore a sure guide to its quality.—*Br. Med. Four.*, Nov. 1, 1886.

TOXICOLOGY.

Roosevelt (J. W.) on Corrosive-Sublimate Poisoning, with Marked Lesions of the Kidneys and Intestines.—S. B.—, nineteen years of age, single, colored, and a domestic, took, on the morning of May 6, 1885, twenty-five grains of corrosive sublimate in solution. She vomited in five minutes. There was severe pain at once in the throat and abdomen. Severe purging began in an hour and a half. Shortly after admission, some hours after the poisoning, she passed urine containing twenty per cent. of albumen, and abundant granular casts, epithelial cells, pus, and blood. The patient stated that

her feet and hands had swelled occasionally during the past year.

May 8th.—Constant purging, and $\frac{3}{4}$ jss. of urine has passed since admission; and on May 9th $\frac{3}{4}$ j. of urine was drawn with the catheter.

May 10th.—Fifteen stools, small in amount and containing blood. Vomiting of yellow fluid free from blood. Great abdominal pain. Urine very scanty, albuminous, granular and epithelial casts; epithelial cells of all shapes—flat, tailed, and polyhedral.

May 12th.—Died in collapse, after continued purging and vomiting and abdominal pain. She was delirious on the night before death, but became rational in the morning. Stools, on day of death, dark slate color and fluid. Her temperature was normal or subnormal, save on day of admission, when it reached 100° F., and on the night before death, when it reached 102.8° F.

Autopsy, one hour and fifty minutes after death.—Body well nourished. Rigor mortis absent. *Brain* not examined. Visceral *peritoneum* injected and dry, and coated with fibrine, especially over the great curvature of the stomach and lower end of the ileum. Mesenteric glands as large as a Lima bean. The *heart*, *lungs*, and *spleen* were normal. The *liver* weighed three pounds three ounces; was soft, slightly mottled, red and yellow, and the cut surface was shiny. *Kidneys*: Perhaps a little enlarged; capsule not adherent; surface smooth; cortex somewhat thickened, yellow, and somewhat granular in appearance; medullary rays appear as paler yellow lines in the yellow cortex. Under the microscope there seemed to be no infiltration of the stroma with cells. The epithelium of the convoluted and some of the straight tubes was in places cloudy, swollen, and granular. In some of the tubes a curious change had taken place. The lumen of the tube was, in some parts of its course, filled with closely packed, round, homogeneous bodies, which showed no sign of structure or nucleus. These bodies stained deeply with eosin. Toward the distal end of the tube they seemed in places to have fused and formed bodies looking like hyaline casts, but so large as to completely fill the tube, which was denuded of its epithelium in these places. That these bodies were altered epithelium was shown by the fact that in many parts of the tubes the

epithelium might be seen in which a similar change was in progress. Also cells showing a similar hyaline appearance at the periphery, and others more extensively changed, with nuclei of indistinct outline which stained poorly, were to be seen here and there still attached to the basement membrane. In some places the tube was simply filled with granular detritus. This hyaline appearance might be due to hyaline degeneration or to coagulation necrosis. In some tubes small flat cells could be seen, which seemed to be newly growing. The blood-vessels were normal. The cells of the capsule of Bowman were swollen.

Stomach: Mucous membrane swollen, reddened, coated with mucus, and showed numerous punctate hemorrhages. *Small intestine*: Mucous membrane of upper part injected and coated with mucus. In the lower two yards of the ileum were quite numerous patches, about one inch square, of gray appearance, covered with a thin false membrane. The *large intestine* throughout showed patches of false membrane, especially on the prominent folds of mucous membrane. The *uterine* cavity contained blood, and in the left *ovary* was a large, fresh corpus luteum.—*N. Y. Med. Record*, Nov. 27, 1886.

Church on a Case of Poisoning by Corrosive Sublimate.—The patient was a child, who, in place of castor oil, had received a spoonful of a glycerine mixture containing about ten grains corrosive sublimate. A large proportion of the poison was rejected by the urgent vomiting which was at once induced, and by the subsequent diarrhœa. Rapid prostration ensued, however, and the patient gradually sank. Death took place twenty-two hours after the swallowing of the dose. The temperature rose before death to 106.6° F. At the autopsy the stomach and bowels were discovered to be much congested, but notwithstanding a most minute examination of six different portions of the viscera, not a trace of mercury could be detected.—*Med. Press and Circular*, Nov. 10, 1886.

Santi Bivona on Catalepsy Caused by Corrosive-Sublimate Poisoning.—The patient, a young woman, twenty-four years of age, following a violent emotion aborted at the third month of her pregnancy. Two days later she had a rigor, and the lochia (abundant at first) became scanty and fetid. She was ordered irrigations containing $\frac{1}{1000}$ of corrosive subli-

mate. Instead of calling in the nurse to give the injection, the patient's sister took upon herself to inject into the rectum one third of a litre of the solution, containing about 2½ grains of the sublimate. In the course of a few minutes the patient was seized with an intense general tremulousness, more marked in the upper extremities; her voice became feeble, and consciousness dull. On the arrival of the doctor, who was immediately sent for, half an hour had elapsed since the injection had been administered. The patient's face was pale, and her skin cold and clammy. She was unconscious; pulse 130, small and feeble; respiration 56, shallow and irregular. The tremors had disappeared, but the tonus of the muscles was increased to such an extent that the limbs preserved the position in which they were placed for more than a minute. Attempts to induce the patient to swallow gave rise to attacks of dyspnœa. A solution of albumen was injected into the rectum, together with hypodermic injections of tincture of musk. The skin was rubbed with hot cloths and alcohol. Notwithstanding this treatment, the breathing became more and more embarrassed, and it was found necessary to resort to artificial respiration. The pulse became imperceptible, and the face cadaveric. Death appeared imminent; but as the heart still pulsed feebly, the treatment was persisted in for upwards of three hours. The patient then began to show signs of returning life, and she recovered consciousness an hour and a half later. She was convalescent in about four days. The patient had never shown any symptoms of hysteria, and every thing pointed to the sublimate as the direct cause of the attack.—*From Gaz. deg. Ospitali in Lond. Med. Record*, Nov. 15, 1886.

Whitmire (C. L.) on Pruritus from Carbolic Acid.—A. L., a young married man, twenty-five years old, of Irish descent, phlegmatic temperament, and by occupation a farmer, was engaged one morning in dressing a wound on one of his horses with a strong solution of carbolic acid. A bottle of the pure acid in a liquid form was standing on a shelf near at hand, and wishing to make the solution he was using a little stronger, he reached up after it. By some unexplainable means, the bottle was broken and the contents spilled out, running down between his-shirt collar and neck and over his shoulder and back. Not knowing the

nature and dangerous action of the acid, as he was then using it for the first time by the advice of a neighbor, he did not wash it off right away, but rubbed off all that was in immediate sight, and then continued his labor. The consequence was that his shirt soon became thoroughly saturated, and in the constant movements his work necessitated the acid was pretty well rubbed into his body, by the time he went into the house, some four or five hours afterwards. When he did so, he examined himself, and found the acid had "taken a good hold." Quite an extensive sore was produced wherever it had touched the skin. He then smeared goose-grease over the part, and for the time thought nothing more of the matter. The sore gradually went through all the process of healing, but before it was quite well, about six or ten days after the accident, he began to experience strange, prickling sensations in and close to the wound. The severity of these symptoms gradually increased, and they spread with moderate rapidity until the whole surface of the body, from crown to foot, was more or less affected. It was as if ten thousand needles were slowly pushed up to their eyes in the different portions of his flesh, then deliberately withdrawn only to be again thrust in. This pain finally became so intense and aggravating as to keep him continually scratching, first one place then another. He would dig and tear at his flesh with great fury. Nothing seemed to appease him. I do not recollect of ever before having seen any greater mental and physical distress. He had no peace and got no rest. He could not sit down even for a minute, and night and day for *eighty-six consecutive hours* he did not sleep a wink, but all that time was running up and down his fields. In this way alone, in the constant movements of his body, could he get the least relief, and even this was only partial. His wife placed his food (chiefly bread and butter) on the corner of the table, and when hungry he would rush in, pick it up, and then rush out again as though possessed of a thousand fiends. He took all his meals for over a week in this way. His neighbors heard he was "poisoned" and came to offer their sympathy and consolation, but they never could find him during the period of his constant vigil. He was always out in the open air rushing up and down the corn-rows, while he scratched and tore at his flesh like a mad-

man. The loss of so much sleep, with the intense pain he experienced, made him almost crazy. In fact, his wild, open, staring eyes, with his actions and general appearance, were more in accord with one bereft of reason than any thing else. Yet, 'midst it all, his mind was clear, his conversation rational, his temperature normal; but his pulse and respiration were both hurried (probably from exercise), his appetite ferocious, and in one week he lost ten pounds.

He came to see me the day the itching began to be intolerable. There was no eruption of any kind on his body. Local and internal treatment combined proved unavailing, so on the next day I bled him in addition to the other treatment. I could scarcely get him quiet long enough to perform the operation. I finally succeeded. While the blood flowed freely all the pain of itching ceased, but the moment the flow was checked by the pressure of my thumb, it began again. On the third day he was still no better, and he looked the very picture of misery. Although I had given him morphia before, *per orem*, I determined to administer it hypodermically, in combination with atropia to lessen its dangerous effects, and see if it were possible to give him the much-needed rest, as at this time he had not slept in eighty-six hours. The result was indeed gratifying, but it was necessary to repeat the same dose every twelve hours for six doses, when it was gradually lessened. After taking him off of it altogether the itching returned, but only in a moderate degree, and was alleviated to a considerable extent by topical applications. This continued about four months, but all the while growing less in severity, and finally occurring only by spells, after which last attack several months have already elapsed.—*Peoria Med. Monthly*, Oct., 1886.

Bradshaw (J. H.) on Belladonna Poisoning.—A patient, a young lady to whom I had given a mixture containing belladonna for asthma, with good results, came to my office, stating that her medicine had been lost, and that she desired a new prescription. This I gave her, and, as she was unable to have it filled at the drug store that night, and was suffering from her complaint, I handed her about two drachms of the normal liquid of belladonna, telling her to take five drops in water before going to bed. As she had been accustomed to

take her other medicine in teaspoonful doses, she disregarded the new directions, and, upon retiring, took an overflowing teaspoonful of the drug. The dose was taken at ten o'clock. Soon after eleven the mother of the patient was awakened by the labored breathing of her daughter, and becoming instantly alarmed at her pallid appearance, summoned her physician. I arrived about two hours after the drug had been taken. There had been no vomiting, and when I reached the room the patient was standing in the middle of the bed, highly delirious, swaying from side to side, respiration difficult and sobbing, heart beating 120 to the minute, and the radial pulse extremely feeble. A small rim of iris surrounding an extremely dilated pupil instantly gave the diagnosis. Although a sufficient period of time had elapsed since the dosage for most of its absorption, still my first efforts were made in causing emesis. Unfortunately, I had no access to apomorphine, and had to resort to such agents as mustard and yellow sulphate of mercury, by the mouth. After struggling with the patient for a long time in vain attempts to make her swallow, efforts of this kind were abandoned, and a half grain of morphine was given hypodermatically.

I have struggled with the delirium of fevers, and with the delirium of tremorous drunkards, but I never before met a patient so violent as this poor girl. I remained with her the remainder of the night, and repeated the morphine in quarter-grain hypodermatic doses; I do not now recall exactly how many, probably *half a dozen*. The morphine acted beneficially almost from the first, and the patient, toward morning, went into a slumber, respirations falling to ten per minute about five o'clock.

The next day the patient dressed herself and spent the greater portion of it upon a sofa, and in a few days was as well as ever. It is interesting to add that for about six months the patient had no attack from her asthma.—*Medical News*, Nov. 27, 1886.

Poisoning by Hair-Dye.—Every now and then the public is startled by the discovery of some new method of insidious poisoning. We learn, perhaps, that there are undreamt-of poisons in stale milk, or in the glazing of stew-pans, or in the solder of fruit-cans. Not only have many in ignorance brewed poison in the pot, and made the air in their houses unwholesome with arsenical wall-paper, but they have also

fairly rubbed poison into their flesh by means of the cosmetic that promises the "bloom of youth."

The recent admirable report of the Massachusetts State Board of Health contains analyses of most of the "hair restorers" to be found in the market, among others including such well-advertised preparations as Ayer's, Allen's, Barrett's, Hall's, Chevalier's, and the "Revivum." Of these, all contained lead, Parker's and Chevalier's showing most, and Barrett's "Vegetable" hair restorative least, though the latter had the equivalent of about 0.22 per cent. of lead acetate.

As among skin cosmetics no innocent substance has the body, the smoothness, and adhesiveness that have caused fine white lead to be preferred by those who offer to hide the homeliness of complexion, so for the hair no dressing has been found to cause the desired gradual darkening without the aid of lead. Either it is mixed with sulphur in the bottle, or trusted to find enough in the hair to form there a deposit of the black sulphide of lead.

The effects are often so vague that the cause is not suspected. Most physicians would not assign to a cosmetic, of the use of which they are presumably ignorant, the causation of such vague symptoms as dry and sallow skin, falling hair, dyspepsia, debility, low spirits, neuralgias, and other usual phenomena of confirmed ill-health. Yet these accompany, and may exist apart from, the sharp attack of colic, or wrist-drop, or joint pains, or brain trouble, that would first direct the physician's suspicion to lead poisoning.

In this connection two important facts are now well established: First, that serious disease may be induced by the long-continued use of lead "hair restorers." Second, that the most popular, if not all, the "hair restorers," *vegetable* and other, contain lead.—*Med. News*, Nov. 13, 1886 (Editorial).

Cavafy on Case of Bromide Eruption.—Edward B—, aged fourteen months, was first seen at the hospital on March 17th. The child had whooping-cough from which, according to the mother, he had suffered for five months. Six weeks before he was attacked with convulsions, which were at first very frequent. They gradually diminished, and subsided in a fortnight, under treatment by bromide of potassium, which the mother stated was at once ordered by the medical man who saw

the child, and continued for a week after the fits had ceased. Various medicines had been given for the whooping-cough, and the last prescription (which the mother brought with her) contained bromide of potassium, tincture of belladonna, and juice of conium. The daily dose of bromide contained in this last mixture was four grains, and the medicine had been taken for about fourteen days. Four or five days before the date of application an eruption appeared on the face of the infant, which quickly reached its present condition—viz., on the right cheek there were four raised nodular patches and five similar ones on the left cheek. The nodules were large, circular or oval in outline, prominent, with a rounded surface, and sharply circumscribed. The largest measured an inch in its longest diameter, the others varying from a quarter to half an inch, and they projected fully a quarter of an inch above the surface of the skin at their central parts. They felt very tense and slightly elastic, and appeared to be tender, as the child cried when they were handled. The surface of each little tumor was covered by smooth epidermis, on which no plugged and dilated orifices of sebaceous glands could be discovered on careful inspection; the surface, however, had a somewhat coarsely granulated aspect, owing to the presence of very numerous subjacent little spheres varying in size from a mustard seed to a millet seed. These were of a milky or turbid yellowish aspect, and were imbedded at various depths in the matrix of the nodules; this was of a bright crimson-red color, which disappeared very incompletely on pressure. The apex of each tumor was covered by a small, thin, black crust of altered blood; which was situated under the epidermis. The greater number of the nodules were studded close to each other on each cheek, and all were sharply marked off at their edges from the perfectly healthy skin on which they were seated. A few isolated red papules, of which the largest was the size of a hemp seed, were scattered over the face, chiefly on the forehead; all the remaining skin of the body was unaffected by any eruption.

No treatment was adopted beyond stopping the bromide, and in a week (March 24th) the black scab above described was found to have extended nearly over the whole surface of the nodules, from which the congestive and hemorrhagic redness

previously noticed had quite disappeared, although their size was not appreciably diminished; no trace remained of the smaller papules. The child was not seen again.—*Pacific Record of Med. and Phar.*, Oct. 15, 1886.

Amidon (R. W.) on a Rare Lesion Produced by Bromide of Potassium.

—Dr. R. W. Amidon presented to the New York Pathological Society (October 13th), an epileptic woman, who had been under his care four years, taking moderate doses of bromide of potassium—perhaps never more than four or five grammes a day. A little over a year ago she discontinued it, but recently he learned that she had been taking during the past eighteen months a mixture of the bromides amounting to six grammes a day. She then returned to him, and he found the ordinary acne on the face, which, although usually confined to the face and neck, perhaps occasionally reaching to the chest and shoulders, had in his patient, as in two others whom he had seen, invaded the legs, and assumed almost the pustular form. The lesion began in the ordinary way, but became indurated with rather a large base, and ran a chronic course, breaking down and forming what appeared to be a small ulcer. Vesicles, with contents which tended to become cloudy and purulent, formed in rings about the acne spot. After a time the centre of the spot took on a reparative process, and entirely healed, while the pathological changes at the periphery spread, and the vesicles became purulent, dried up, and formed a brownish scab. A section of one of these spots showed that there had not been a true ulcer, but that the skin had simply been denuded of the cuticle, leaving the papillæ intact. He had in no case seen the true skin invaded. The disease did not seem to depend particularly upon the amount of the bromides given. The only local treatment which he had seen do good was the thorough application of the actual cautery.—*Med. and Surg. Reporter*, Dec. 18, 1886.

Brown (J. G.) on Case of Poisoning by Strychnia.—At 8:15 A.M., on Sept. 23d last, I was summoned to see a woman, who had been moaning and screaming for some time, but was said to have become speechless, unconscious, and seemed very bad. She was a lodger named Margaret B—, aged thirty-five, married but had been deserted by her husband a few

days previously. She was lying on her back in bed, dressed, her eyes closed, and could not be roused; her arms were pressed against her sides, and her hands clasped firmly over the chest; the skin was a reddish-purple, and hot; tongue dry; pulse weak (96); respiration short. Every few minutes she would groan, her arms become pressed more firmly against her sides, her legs being rigid and straight, and the soles of the feet arched and back stiff. She could not bend her back, her pulse increased in rapidity, and respiration seemed to stop. There was a peculiar hoarse rattling in the throat, and her face became of a bluish-purple color. On the mantle-piece I found a teacup empty and dry, lined with a bluish material which tasted bitter, and in the chamber utensil an empty packet of vermin-killer. An attempt to produce emesis failed, and the passage of a tube down her œsophagus brought on a spasm which threatened to end the case; regurgitation in her jugulars was noticed up to the angle of the jaw, and asphyxia almost took place. Chloroform was of certain benefit in two of the spasms, and I procured a one-in-two solution of chloral hydrate and gave her three hypodermic injections of twenty minims each, which reduced the rapidity of the paroxysms and improved her breathing. At 9 o'clock I gave her a final hypodermic injection, making about forty grains in all; she was drowsy, but was made to swallow half an ounce of tannate of glycerine and allowed to sleep. The first needle puncture gave rise to a drop of thick dark venous blood, but the color rapidly improved. At noon she was still sleeping, but made a slow recovery, and is now in an asylum.—*Lancet*, Dec. 4, 1886.

MEDICINE.

Hutchinson (H. A.) on Acute Melancholia Caused by Impacted Fæces.

—Mrs. S., aged forty years, was recently admitted to the Western Pennsylvania Hospital for the Insane.

At the time of her admission she was suffering from acute melancholia, was very weak, extremely emaciated, skin bronzed, dry, and harsh, hair dry and falling out, and all the secretions of the body were perverted.

In her conduct she was very suicidal,

destructive of clothing, and presented the appearance of abject despair. Conversation was entirely incoherent, though she gave evidence of a few systematized delusions—that her body was infected with vermin and snakes, and her clothes with moths, which she tried vainly to drive away by frequently tearing her clothing and burning it.

The previous history of the case, obtained from her husband, was that of a gradual decline in bodily health during the past year, and the appearance of insanity within the last three weeks. Constipation had been constant, and more recently there had been inability to void urine, requiring the use of a catheter. Menstruation had ceased some years previously.

The family history told of three other members who had been insane, neither of whom recovered—two sisters and an uncle. The cause of insanity was stated as unknown. The medical treatment combined tonics, frequent applications of blisters to the nape of the neck, laxatives, and at night large doses of bromide of potassium and chloral.

Laxatives, when employed, were said to have always caused free movements of the bowels, but their use was followed by increased excitability.

Upon being admitted to the hospital, the patient was immediately placed in bed, and thoroughly examined.

In addition to the already detailed marked evidences of her exhaustion, a distinct tumor could be felt through the thin abdominal walls, following the course of the rectum and sigmoid flexure, and making the introduction of a catheter to relieve her distended bladder almost impossible.

The tumor was at once thought to be an accumulation of hardened fæces, and the cause of ill-health and consequent insanity. Removal of the mass was accomplished only after much persistent effort for several days, and the employment of the various suitable injections, together with the free use of the scoop.

Rapid improvement in the patient's mental condition followed this procedure, and in less than one month she was discharged in perfect health of body and mind.—*Am. Jour. of Insanity*, Oct., 1886.

Bryant (W. H.) on Myxœdema.—Mrs. N—, forty-six years of age, of remarkably healthy parents, and a perfect

type of both physical and mental health, was delivered of her third child twelve years ago. Saw her ten days after and found her with all the characteristic symptoms of septicæmia, from which she recovered, and was dismissed well in about three weeks. Two years after she was again confined with her fourth child. Five days after symptoms of septicæmia were manifested, but as she was at once put under proper treatment, all signs and symptoms of her former serious attack soon disappeared, and in a few days she was again dismissed well. I give this brief puerperal history, as it was a probable factor in the etiology of a subsequent disease. Two years after her fourth and last confinement, I was requested to see her on account of failing health. She presented the appearance of one suffering from Bright's disease; the face and the eyelids were cedematous, and had that peculiar pale, waxy color so characteristic of chronic nephritis. Her feet and ankles were also swollen, but did not pit on pressure. I felt sure that she was suffering from some of the forms of Bright's disease, and obtaining a sample of her urine, I was surprised to find it did not contain a trace of albumen.

I visited her a short time since, and found her in the following condition: The face presented the same pale, puffy, waxy appearance as when the patient was first examined six years ago. The hands, arms, feet, and legs were enlarged to almost double their natural size, the swelling of the hands being especially marked. The abdomen was as large as at the eighth month of gestation. The patient thinks, talks, and performs all motions very slowly and carefully, and in conversation she is provokingly tedious. She never leaves her house for a walk on account of the slow and awkward manner of her gait, and the constant fear she has of falling. She can neither button nor unbutton her shoes, and it requires a long time for her to dress herself, and very often it is necessary to have assistance in completing her toilet. The skin over the entire body and limbs is dry and scaly; the lips and tongue are flat and thick, and with the swollen complexion, vacant stare, etc., she presents the appearance of an imbecile. During the day there is a sero-mucous discharge from the nose, which compels her to keep a handkerchief always at hand, and at night saliva flows from the mouth in quantity sufficient to

saturate the pillow. On top of both shoulders there is a large deposit of fat or mucine, and on the dorsal surface of all her fingers, between the first and second joints, there is an enlargement about the size of a cherry. This swelling of the hands, with the thickening of the skin, which gives the "spade-like" appearance, is hard and unyielding.

She eats with great care and deliberation, on account of not being able to swallow well, and does not attempt to take any but small bits of solid food. A year ago a tooth was extracted—upper bicuspid—which caused an ecchymosis spreading over the entire cheek and side of the neck, and lasting six weeks. Her mental capacity is weak, and she is keenly aware of this fact, as she said to me while visiting her: "I thought sometimes I would soon go to the asylum."

The first two years of her disease, she states, she was always so sleepy that she could not sit down in quietude for a few minutes without falling asleep, and it was with difficulty that she could be aroused. At this time I prescribed active diuretics, cathartics, and diaphoretics, under the impression that uræmic coma or convulsions were impending. There has never been any enlargement of the thyroid gland, and at present it seems to be of normal size, though a thorough and satisfactory examination could not be made on account of the thickening of the skin and tissues of the neck.—*St. Joseph Med. Herald*, Nov., 1886.

Battle (L. L.) on Nocturnal Incontinence of Urine in Children.—In my early professional career a novel idea of the pathology and treatment of this disease was suggested to me by the recital of the confession of a gentleman who in his early life belonged to this large class of little sufferers. I will use his own language:

"When I was a boy I habitually wet the bed until I had arrived at my twelfth year. One morning about this time I was sent to accompany two young ladies on a visit about thirty miles distant. We went in one of those old-time C-spring carriages, and in those days it took nearly all day to make the trip. I was tolerably comfortable for the first six or eight miles. I then, however, began to want to urinate, and before we arrived at our journey's end I thought my bladder and the bottom of my abdomen would burst. We got out of

the carriage, but we were in town, and as I had never been in town before, and saw houses and people everywhere, I was in as bad a dilemma as ever. I kept as still in the house as I possibly could. I was in great misery, and saw no chance of relief until night, and as the sun was then two hours high, I thought I would die before dark. This was the longest time I had ever held my urine, and you may imagine my distress. At this stage one of the boys at the house asked me if I did not want to go and go in swimming with him. When Gabriel blows his trumpet I don't suppose any of the ancient masters will feel more elated than I was at this prospect of relief. We were soon out of sight of the town folks, and I began to evacuate my bladder. It was so full that it took me a long time to do this, however, and the process occasioned in me a feeling of most exquisite relief. I have never wet the bed more than once or twice since that time."

It is more than likely that this boy's bladder was not large enough to hold the amount of urine naturally accumulating in it during the night, and all that was necessary was to give it the required amount of dilatation to give it a proper capacity, which was done by retention. The cause of enuresis in a great majority of the cases that have fallen under my observation has been a contracted bladder, and I have never had any trouble in relieving it by advising the retention of the urine during the day, until the bladder is properly dilated. Of course there are cases which this treatment will not relieve, but it has relieved nearly all the cases that I have met with in a practice of nearly forty years.—*Miss. Valley Med. Mo.*, Oct. 10, 1886.

MISCELLANEOUS.

135 North Pearl St., ALBANY, N. Y., }
Dec. 1, 1886. }

Editor Medical Analectic :

DEAR SIR :—In the ANALECTIC for November, 1886, under "Treatment of Ivy Poisoning," page 490, you said: "Dr. S. A. Russell, of Albany, advises a solution in ether or alcohol, 3i to ʒi, as a local application." You omitted to mention the drug to be so used in solution, namely,

menthol. Will you have the kindness to insert this note in your next issue?

Very truly yours,

SELWYN A. RUSSELL.

Sherwin (O. W.) on the Reduction of Copper in Fehling's Solution with Chloral Hydrate.—On applying Fehling's test to a specimen of urine sent to me for examination, I found the copper reduced as with diabetic urine, while the specific gravity was only 1015. On inquiry I found that a few grains of chloral hydrate had been added to the urine to prevent decomposition. On further trial I found that a very weak solution of chloral hydrate in clear water would reduce the copper. I have since experimented with it in different solutions and varying strength, and always with the same results. In two cases, after the internal administration of medicinal doses of chloral, the characteristic reaction was produced on testing the urine with the copper solution. Two days afterwards the urine in neither case showed any signs of sugar.

The fact that chloral hydrate would reduce the copper solutions if added to urine was new to me, and I think is not generally known. I do not remember seeing any mention of it in the text-books or journals. Further investigation regarding the effect on the urine of the internal use of chloral is desirable.—*Boston Med. and Surg. Jour.*, Nov. 18, 1886.

Daish (W. C.) on a Case of Rheumatism, Followed by Typhoid Fever.

—O. S., aged nineteen, a cab-driver, was admitted on the 28th of April, 1886, after a week's illness, complaining of pains in the legs and body, headache, thirst, anorexia, constipation, and insomnia. He had had rigors and epistaxis; the temperature was 101.8°, the skin dry, the pulse 96. There were tenderness, swelling, and pain in the knees and elbows. The heart sounds were clear. After a week's pyrexia, during which the temperature rose to 103.2°, it fell to normal, and he was discharged on May 9, 1886. A week later he was readmitted, with fresh joint trouble and pyrexia. The heart sounds were not now clear, the first being muffled at the apex, and a loud systolic bruit being heard over the pulmonary area. In a week the temperature was normal, and the joint trouble abated. After ten days of normal tem-

perature, there was fresh joint trouble, and another ten days of elevated temperature. The bruit became more distinct and musical, and of greater intensity at the apex. Then followed ten days of normal temperature, with more or less rheumatic pains about the hands and shoulders, but on the night of the 21st of June the temperature went up to 103° , and ranged between that and 101.6° till the 29th, when he died with a temperature of 104.2° . On the day after this rise of temperature, there were some rhonchi at the bases of the lungs, the abdomen was noted as normal, and a trace of albumen was found in the urine. Insomnia was present till death. On the 24th the notes were: "Sweating profusely, and feeling short of breath; no pain anywhere; does not take nourishment; bowels open; tongue moist, slightly coated; abdomen natural; bladder empty; insomnia; musical systolic apical bruit; rhonchi over chest, back and front."

On the next night was fretful and did not know where he was, and on the 26th was not sensible; was moving his eyes continually, and would not look steadily at any thing, having a suspicious appearance. There were conjunctivitis and a discharge from the eyes, and profuse sweating, which were present to the end. On the next day the pupils were unequal, the right being smaller than the left; patient would not swallow, fluids put into his mouth remaining there. The bowels were open after ten grains of calomel and a dose of white house. The abdomen was normal. The head and eyes were restless and shifting. On the next day all his limbs were rigid, and on the 29th the eyes were open and immobile, the left pupil being larger than the right; conjunctivitis and a discharge were still present. The tongue was dry and brown; the bowels open; the abdomen retracted markedly; and nourishment was taken very badly. There was great wasting during the last two days. There were no twitchings of any muscles.

At the autopsy the brain and membranes were found to be healthy. The mitral valve showed a regular fringe of small soft granulations round the borders of its cusps. The small intestine presented typical lesions of typhoid fever at the end of the second week.—*Australian Med. Jour.*, Oct. 15, 1886.

BOOK NOTICE.

The Mechanism of Indirect Fractures of the Skull.—By CHARLES W. DULLES, M.D. Philadelphia, Wm. J. Dornan, printer, 1886.

This pamphlet gives an interesting review of the literature of the subject from the writings of Hippocrates to the present time, with a discussion of the various theories advanced. From a study of this literature and of the various experiments recorded the author concludes that the "bursting theory" is the correct one, that being "the conversion of direct depressing force into an indirect disruptive force, brought about by a shortening of the axis parallel to the direction of the force and a complementary lengthening of the axes at right angles to the former."

Dr. Dulles has collected 119 cases of fracture of the skull, many of them experimental, and divided them into 18 classes, and illustrated by 28 plates the direction of the violence and the line of fracture caused. In this way he shows that the petrous portion of the temporal, and basilar portion of the occipital, instead of having, as is generally supposed, peculiar strength, are "the very seats of election for fractures of the bases."

Of the 119 cases collected by the author only 8 seem to contradict the "bursting theory," and he sums up with the conviction "that the supreme law governing the production of indirect fractures, is that which depends upon the fact that the skull is practically a hollow elastic case, approximately oval in shape, and which may be briefly formulated as follows: When a sufficient force is applied to any curvilinear part of the skull, if this part do not give way immediately, the axis of the skull lying in the same line as that of the applied force is shortened; all the axes lying in planes at right angles to this line are correspondingly lengthened, with a proportional lengthening of their circumferences, and separation of their meridians; so that the direct depressing force is converted into an indirect disruptive force acting at right angles to the direction of the former. The effect is to produce a fissure, or fissures, which will have a general meridional direction. The application of this law is subject to certain modifications due to the anatomical and architectonic peculiarities of the skull, its coverings and contents, and to certain exceptions due to the amount and velocity of the force applied as well as to the coming into play of peculiar counter-forces."

There is added a very valuable and complete bibliography. G. B. P.

PUBLISHERS' NOTES.

Phillips' Emulsion of Cod-Liver Oil.—"Cod-liver oil (with its emulsions) is a subject which seems to have agitated the mind and excited the inventive genius of manufacturers, pharmacists, and physicians, with the result of flooding the market with many indifferent preparations of this nauseous drug. The old house of Chas. H. Phillips & Co. (established in 1849) has always been noted for the originality and efficacy of its productions, and their Milk

of Magnesia and preparations of the Acid Wheat Phosphates have met with a wide success. They have now given their attention to the preparation of an Emulsion of Cod-Liver Oil, which has for its distinctive features: the combination of the oil with the phosphates, the emulsionizing or peptonizing by means of pancreatine, the minute division accomplished of the oil globules, and the perfect miscibility. This preparation has won for itself a high repute.

Colden's Liquid Beef Tonic.—For children, convalescents, and invalids of weak constitutions, the use of "Colden's Liquid Beef Tonic" will be found invaluable.

T. COLDEN, Proprietor,
Baltimore, Md.

"Horsford's Acid Phosphate."—Dr. W. W. Gardner, Springfield, Mass., says: "It seems almost tautological to recommend Horsford's Acid Phosphate—a valuable local and stomach tonic. I have made use of it in my family and in practice for years. I will, however, repeat what my practice confirms, that I value it, when taken according to directions, as an excellent preventive of indigestion, and a pleasant acidulated drink when properly diluted with water and sweetened."

Peacock's Bromides.—In three cases, which were to me very important, the beneficial results of Peacock's Bromides were even beyond my most sanguine expectation.

Thomson, Ill.

F. M. MELUGIN, M.D.

"Lactated Food."

1015 MARY PLACE,
MINNEAPOLIS, MINN., Jan. 11, 1886. }

WELLS & RICHARDSON CO.,

Gentlemen:—I am happy to be able, after taking so much time, to say that I am satisfied that you have become benefactors to mankind in giving the world a food adapted to the wants of those whose digestive powers are inadequate, whether in the earliest or any other period of life. Self-digesting, it only needs trial to satisfy any unprejudiced mind of its value. The age is progressive and a better food may be discovered, but, in my humble judgment, it must be a future event. After thirty years of active practice, this is the first instance of my certifying a proprietary preparation, a fact that I mention to show my estimation of your Lactated Food.

Very truly yours,
P. L. HATCH, M.D.

Murdock's Liquid Food.—

NEW YORK, Sept. 21, 1882.

Gents.—Last January I wrote you for some of your Liquid Food for my wife, who had been for years a sufferer from an irritable stomach, which at times (and just then she was in a most deplorable condition) refused even distilled water. Whatever the best medical skill of this city would suggest has been tried, and tried over again, with no relief.

I gave her your Liquid Food, and was much pleased with the results, it proving to be the only thing that saved my wife from dying of starvation, and she is now enjoying better health than she has for many years.

With such results I can only say that I use your Liquid Food largely in my practice, and with excellent results.

Yours,

J. VON MEYER, M.D.

Iron-Alum Mass.—Seven Springs Iron-Alum Mass is, in my opinion, the best iron preparation known to the profession.

L. J. BURTON, M.D.,
Blossom Prairie, Texas.

"Cod-Liver Oil with Hypophosphites."—As a nutrient means of checking and repairing bodily waste, and remedying disease of the throat, chest, and lungs, "Scott's Emulsion" has long held a very high rank among preparations of cod-liver oil for the last fifteen years. The certificates of some of the most eminent physicians and analysts in Europe and America, in both of which countries it is widely esteemed by the profession and the public, attest both its efficacy and its chemical purity.—*Townsend's Quarterly Epitome*.

Lactopeptine.—

PHILADELPHIA, PA., May 30, 1878.

I have found great satisfaction in the use of Lactopeptine, and have ordered it frequently in cases of dyspepsia, especially where there is want of tone and defective secretion.

JOHN H. PACKARD, M.D.,
Pres. Pa. Co. Obstet. Society; Surg. Episcopal and Women's Hospitals.

Abdominal and Uterine Supporter.—Send to G. W. Flavell & Bro., 248 North Eighth Street, Philadelphia, Pa., for their catalogue of Abdominal and Uterine Supporters.

GENERAL INDEX.

- Abdomen, penetrating wounds of, 129
- Abdominal hemorrhage during menstruation, 175
- Section for peritonitis, 544
- Abortion, habitual, from diseased heart and kidneys, 182
- Abscess, of breast, 29
- Cerebral, 60
- Emphysematous, of thigh, 521
- Fæcal, 69
- of kidney, 319, 320, 322, 323
- Pelvic, 132
- Perinephritic, 318
- of spleen, 102
- Abscesses, cold, and tuberculosis, 27
- Miliary renal, 363
- Accommodation, spasm of, 383
- Acetanilide or antifebrine, 548
- Acid, boric, in the mouth, 353
- in urethritis, 300
- Boracic, in vaginal tampons, 527
- as an anæsthetic, 550
- Carbolic, abuse of, 250
- Analgetic action of, 334
- causing pruritus, 556
- in malarial fever, 231
- in varicose veins, 504
- Poisoning, 207
- Hydrochloric, externally in biliousness, 233
- Poisoning, 361
- Hydrofluoric, 394
- Lactic, local use of, 108
- in laryngeal phthisis, 552
- Nitric, death from fumes of, 472
- Oxalic, as an emmenagogue, 261
- Poisoning by, 123
- Pyrogallie, 204
- Salicylic, in diabetes, 259
- Sphacelic, in acne rosacea, 256
- Sulphurous, in typhoid fever, 210
- Tannic, idiosyncrasy with, 358
- Acids, vegetable, germicide value of, 11
- Acne, treatment of, 333
- Acne rosacea, sphacelic acid in, 256
- Aconite, poisoning by, 121, 266
- Aconites, American, 4
- Acorn cocoa in diarrhoea and vomiting, 463, 464
- Adenoid vegetations of naso-pharynx, 136
- Adenoma, renal, 17
- Adhesions between soft palate and pharynx, 155
- Adonidine, 4
- Age, effect of, on dosage of nuxvomica, 203
- Woollen clothing in, 494
- Ague, brass-founder's, 165
- Air-tester, Wolpert's, 408
- Albumin, testing for, 430
- Albuminuria, 310
- Alimentation in, 154
- and diabetes, 523
- and gout, 311
- Ergot in, 205
- from mercury and syphilis, 166
- Alcoholic neuritis, 193
- paralysis, 209
- Alcoholics, subpectoral phlegmon in, 520
- Tremulous paresis of heart in, 308
- Alcoholism, chronic, lesions of, 17
- Strychnia in, 158
- Alimentation, rectal, 293
- Alkaline salts, action of, on blood-vessels, 394
- Alkaloids, cadaveric, 370
- Allyl, tribromide of, 394
- Aloin and aloetin in the animal organism, 8
- Amblyopia, from bisulphide of carbon, 142
- from iodoform and creasote, 41
- from tobacco, 142
- Amenorrhœa, permanganate of potash in, 114, 115
- Ammonia and iron, fluorides of, 260
- Amœbæ infesting sheep, 80
- Amyl nitrite in whooping-cough, 466
- Anæmia treated by hypodermic injections, 303
- Anæsthetic action of formene, 303
- of boracic acid, 550
- Anæsthetics, deaths from, 164
- Use of, in chronic Bright's disease, 110
- Analgesic action, of antipyrin, 493
- of solanine, 489
- of theine, 199
- Analgesic, carbolic acid as an, 334
- Aneurism, abdominal, and pregnancy, 425
- Orbital, 177
- Angioma under tongue, 45
- Aniline pencil, poisoning by, 497
- Ankle, excision of, 33
- Anodyne, vesical, 397
- Ano-vulvar region, lupus of, 419
- Anthelmintic, naphthalin as an, 397
- Antifebrin, 548
- Antipyrin, action of, 203
- as a nervine, 459
- as an analgesic, 493
- effect on urine, 549
- rash, 232
- Antisepsis, digestive, 267, 311
- in enucleation, 329
- Antiseptic, bismuth as an, 202
- dressing, 154
- powder, dry, 460
- Antiseptic, treatment of phthisis, 249
- vaginal injections, 226
- Antiseptics, 31, 32
- Dry, 65
- in cerebral surgery, 60
- in diphtheria and croup, 73
- for the eye, 140
- in midwifery, 226, 227
- Anuria and eclampsia, 284
- Anus, delivery by, 285
- Fissure of, 239
- Aorta, stenosis of, 289
- Aphasia, sensory, 377
- Apneumotosis, 394
- Apocynum cannabinum in dropsy, 118
- Apomorphine from transformation of morphine, 303
- Apone, 160
- Arteries, contusion of, 177
- Artery, abnormal, in pharynx, 335
- Arthritis deformans, 478
- arsenic in, 399
- Rheumatoid, 170
- Arsenic, effect of, on spinal cord, 124
- eliminated in the milk, 143
- in arthritis deformans, 399
- in skin diseases, 334
- Arsenical eruption, 267
- Arsenite, of bromine in diabetes, 300
- of potash, 356
- Ascarides, action of poisons on, 116
- Ascites, diagnosis of, by vaginal touch, 500
- Asclepia tuberosa, 353
- Asphyxia neonatorum, 394, 465, 466
- Asthma, bronchial, theory of, 15
- Iodide of potash in, 196
- treated by pyridine, 147
- Ataxia, locomotor, without pains, 70
- Paralytic, of heart, 497
- Progressive locomotor, 271
- Ataxic pains treated by spray, 493
- Atmospheric purification, 153
- Atrophy, linear, of skin, 127
- Atropine in nocturnal earache, 232
- Auctioneer's cramp, 367
- Avulsion of scrotum, 380
- Baby, as water drinker, 498
- Bacillus, comma, effect of, when fed to insects, 77
- of typhoid, 375, 409
- Bacteria of surgical diseases, 277
- Baruria, 166
- Basilar artery, embolus of, 314
- Bath, death in, 360
- Baths, hot, in pneumonia, 494
- Hot, in renal disease, 492

- Baths**, Permanganate of potash, 116
Tepid, in the treatment of cerebral rheumatism, 86
Battery, portable, 359
Belladonna, inhalations in acute bronchitis, 155
 in nocturnal incontinence, 429
 in sterility, 397, 526
 poisoning, 123, 165, 557
 Tincture of, in croup, 395
Benzoate of soda in vesical irritation, 397
Bichloride sawdust, 92
Bichromate of potash, 401
Bile and urea, 363, 479
Biliary calculi, 373
Biliousness, hydrochloric acid externally in, 233
Bismuth, subiodide, in ulcerations, 491
 Subnitrate of, 202, 353
 Subnitrate of, poisoning, 207
Bisulphide of carbon, 361
 as cause of amblyopia, 142
Bladder, anodyne for, 397
 Aspiration of, 420
 Digital exploration of, 421
 Ulcers of, 420
Blind, dreams of, 515
Blisters in the treatment of vertigo, 400
Blood-corpuscles, effect of quinia on, 195
Blood, extravasated, fate of, 345
 Inhalations of, 119
Blood-vessels, action of alkaline salts on, 394
Boldo-glucine, 303
Bone, resection of, for malignant disease, 279
Boracic acid with vaginal tampons, 527
 as an anæsthetic, 550
Borax in epilepsy, 237
Boric acid in the mouth, 353
 in urethritis, 300
Brain, abscess of, 60
 Concussion of, 213
 Embolism of, 333
 Embolism of, experimental, 368
 Foreign body in, 413
 in sensory aphasia, 377
 Softening of, 341
 Surgery of, 49, 59, 60, 317, 411
 tumors, treatment of, 390
Brass-founder's ague, 165
Breast, abscess of, 29
 male, cancer of, 195
 male, hypertrophy of, in phthisis, 250
Bright's disease, and puerperal eclampsia, 231
 Detection of, 406, 407
 Pathology and treatment of, 499
 Retinitis in, 382
 Treatment of, 354
 Use of anæsthetics in, 110
Bromide of nickel, 299
 of potash and calomel, incompatibility of, 261
Bromides, tolerance of, 459
Bromides, eruption from, 558, 559
Bromine arsenite in diabetes, 300
Bromine in diphtheria, 466
Bronchial asthma, theory of, 15
Bronchitis, acute, 155
 Acute infantile, 168
Bronchocele, ergotin in, 467
Brown skin from sulphur, 427
Brucine, 201
Bubo curing hernia, 382
Buboes, subcutaneous method of treatment of, 421
Cabinet, pneumatic, 301
Cadaveric alkaloids, 370
Caffein, 159
 Poisoning by, 12
 in laryngeal phthisis, 45
Caffeine, ethoxy-, 201
Calcic phosphates, inutility of, 119
Calcium chloride, 104
Calculi, biliary, 373
 Vesical, 126
Calculus nephralgia, 216
Calculus, fecal, 363
 removed from bowels, 497
 Renal, 318
 Salivary, 173
 sloughing out through perineum, 178
 Vesical, 35
 Vesical, surgical treatment of, 506
Calomel as a diuretic, 160
Camphor, poisoning by, 238
Cancer of male breast, 195
Cannabinon as an hypnotic, 85
Cannabis indica, green color of extract of, 431
Carbolic acid, abuse of, 256
 Analgetic action of, 334
 as cause of pruritus, 556
 poisoning, 207
 in malarial fever, 231
 in varicose veins, 504
Carbolized iodine injections in phthisis, 268
Carbon bisulphide, as cause of amblyopia, 142
 Poisoning by, 361
 Blood changes produced by, 402
Carbuncle, permanganate of potash in, 256
Carburetted hydrogen in whooping-cough, 396
Cardiac stimulants, 4
Carcinoma, cutis, 509
 of colon, 129
Casts, detection of hyaline, 407
 Intestinal, 374
Cataract, irrigation in extraction of, 140
Cataract patients, rational treatment of, 325
Catarrh, neurotic treatment of, 155
Caterpillar, symptoms from swallowing a, 93
Catheterization, retrograde, 506
Catharsis from hypodermic medication, 531
Cautery, in herpes, 493
 in uterine diseases, 465
 in whooping-cough, 466
 tip in peritoneal cavity, 183
Cephalhæmatoma, intracranial, 94
Cerebral, rheumatism, treatment of, 86
 surgery, 49, 59, 60, 317, 411
Cerium oxalate in dysentery, 12
Chancre, hard, simulated, 516
 Inguinal, 515
 of the ear, 253
 of elbow, 253
 of eyebrow, 253
 of eyelid, 515, 516
 of upper eyelid, 142
 Urethral, 35
Chancres, soft, 233
Chancroid and urethritis, 222
 of middle ear, 516
 simulated, 516
Chemical constitution and physiological action, 385
Chest, pistol-shot wound of, 281
Childhood, new parasitic affection of, 404
Chionanthus virginica, 206
Chloral, butyl, poisoning by, 304
 hydrate, in cerebral rheumatism, 86
 reducing Fehling's test, 562
 Tolerance of, 459
Chloroform and ether, 264
 poisoning, 165
Cholecystotomy, 130
Chondroma of upper lip, 519
Chordæ tendinæ, short, 410
Chorea and embolism, 368
 and retinal embolism, 141
 excited by sudden return of hearing, 271
 syphilitic, 368
 treated by cimicifuga, 535
 treated by hyoscyamine, 116
 treated by urethan, 271
Choroid, ossification of, 91, 188
Chrysophanic conjunctivitis, 325
Chyluria, 193
Cimicifuga in treatment of chorea, 535
Cocaine, artificial, 92
 as cause of glaucoma, 512
 as diuretic, 300
 causing lesions of cornea, 452
 dangers of, 40
 effect of, on central nervous system, 400
 in carbolic-acid poisoning, 207
 in whooping-cough, 551
 in insanity, 198
 in lithotripsy, 222
 in urethritis, 300
 poisoning, 89
 salicylate in asthma, 494
Cold air, in enteric fever, 156
 in fevers, 494
Cold to præcordia in fever, 386
Cold water, thermic action of, 352
Colectomy for carcinoma, 129
Colles' fracture, 63
Colloid degeneration of skin, 235

- Collyria, permanent, 324
 Colombine, 459
 Colon and stomach, communication between, 277
 Coma, diabetic, 502
 Comma bacillus fed to insects, 77
 Compound liquorice powder, alteration of, 489
 Compressed air-bath in Ménière's disease, 169
 Concussion of brain, 213
 Condylomata, pointed, 204
 Conjunctiva, essential shrinking of, 88
 Obliteration of sac of, 39
 Pemphigus of, 423
 Conjunctival tumor containing hair, 286
 Conjunctivitis, chrysophanic, 324
 Corrosive sublimate in, 40
 Granular, 324
 Lemon juice in, 256
 Consanguinity and marriage, 294
 Constipation, treated by massage, 258
 Treatment of, 442
 Consumption, hatter's, 278
 Contusion of arteries, 177
 Convulsions, cured by morphine, 160
 Infantile, morphine in, 205
 Puerperal, 284
 Copper acetate in chronic phthisis, 355
 Cord, embolism of, experimental, 368
 Postero-lateral sclerosis of, 517
 Cornea, foreign body in, 188
 Lesions of, from cocaine, 452
 Ulceration of, 234
 Corneal changes in acquired syphilis, 515
 Corpora cavernosa, sclerosis of, 516
 Corrosive sublimate, as surgical dressing, 131
 catalepsy from, 556
 in hydrocele, 92
 in ocular therapeutics, 324, 511
 in purpura, 462
 injections in pulmonary cavities, 81
 Intestinal lesions of, 495
 in typhoid fever, 119
 poisoning, 555, 556
 Cosmetic poisoning, 305
 Cotton, carded vs. absorbent, 550
 Cotton-root in nervous affections, 398
 Cough, winter, terebene in, 7
 Course of disease, serious sources of error in studying, 241
 Cow's milk, qualities of, 407
 Cramp, auctioneer's, 367
 Violinist's, 233
 Creasote, amblyopia from, 41
 Cresol group, analgetic action of, 334
 Crime and responsibility, 406
 Croup, belladonna and mercury in, 395
 treatment by antiseptics, 73
 Cyanide-of-potassium poisoning, 122
 Cystitis, silver nitrate in, 465
 Cysts, dermoid, of ovaries, 426
 Papillomatous, 43
 Deafness, operation for, 91
 Death in bath, 360
 Deformation of projectiles by the bones, 34
 Deformity of penis, 173
 Delivery endangered by diseased uterine appendages, 382
 Dermatitis, exfoliative, 508
 ferox, 101
 Dermoid cyst of both ovaries, 426
 Determination of sex, 391
 Diabetes, albuminuria in, 523
 Ergotinine in, 205
 in disseminated sclerosis, 406
 mellitus in boy of three, 540
 Neuralgia in, 70
 Saccharine, 18
 treated by arsenite of bromine, 300
 Diabetic, coma, 502
 retinitis, 89
 Diarrhœa, chronic, a simple remedy for, 300
 ice-water enemata in, 551
 in children, 362, 405, 463, 476
 Salicylate of soda in, 463
 Dietetics in fevers, 362
 Diet in chyluria, 193
 Digestive tract, antiseptics of, 267
 Digital exploration of bladder, 421
 Digitalis, use of, 158
 Dilatation of the heart at puberty, 252
 Diphtheria, bromine in, 466
 of gums, 212
 of parturient canal, 181
 treated by the galvano-cautery, 155
 treatment, 170
 treatment by antiseptics, 73
 versus croupous tonsillitis, 269
 Diphtheritic casts from ureter, 75
 Disinfectant action of stannous chloride, 237
 Disinfection, atmospheric, 153
 of Eustachian catheter, 154
 Dislocation, of humerus, 65
 of thumb, 64
 Disseminated sclerosis and diabetes, 406
 Diuretic action, of calomel, 160
 of cocaine, 300
 Doigt à ressort, 310
 Dosage, 359
 Drastic poisons, intestinal lesions of, 257
 Dreams of the blind, 515
 Dressing, new surgical, 66
 peat powder as, 220
 pine wool as, 221
 Drinking water of sawdust cities, 86
 Dropsy, treatment of, 118
 Drugs, fewer, 57
 mechanical action of, 85
 Drum of ear, ulcer of, 382
 Drunkards, 250, autopsies of, 17
 Dry, chloride of sodium in subinvolution, 526
 dressings in antiseptic surgery, 65
 Treatment of corporeal endometritis, 426
 Duodenal perforation, 174
 Dynamite fumes, poisoning by, 472
 Dysentery, cerium oxalate in, 12
 Quinine in, 259
 treated by ergot, 154
 Dyspepsia, papain in, 202
 Ear, artificial drum for, 186
 Chancres of, 253
 Exostosis closing, 185
 internal, tuning-fork in diagnosis, 186
 middle, chancroid of, 516
 Disease of, 184
 Osseous tumors of, 185
 Removal of bodies from, 185
 Earache, nocturnal, atropine in, 232
 Eclampsia, and anuria, 284
 Puerperal, and Bright's disease, 231
 Treatment of, 93
 Ectopic gestation, 231
 Eczema, resorcin in, 553
 Effusions, pleuritic, early removal of, 389
 Eggs, poisoning by, 208
 Elbow, chancre of, 253
 Electricity in violinist's cramp, 233
 Electric light, effect of, on eye, 514
 Electrolysis in pelvic diseases, 550
 Embolism, and chorea, 368
 Cerebral, 333
 of brain and cord, experimental, 368
 of retina, 141
 Embolus of basilar, 314
 Emmenagogue, oxalic acid as, 261
 Empyema arresting tuberculosis, 267
 Empyema treated by perfilation, 364
 Enchondroma, of femur, 488
 of heart, 488
 of lung, 488
 Endarteritis obliterans, 341
 Endocarditis, exudation, 124
 of pneumonic origin, 474
 Endometritis, corporeal, dry treatment of, 426.
 Enucleation, and meningitis, 329
 and transplantation of eyes, 326, 328
 fatal results of, 329
 of eyeball, 39, 287
 Epididymitis, 380
 Syphilitic, 69
 Epilepsy, and megrim, 216
 Borax in, 237
 from acute rheumatism, 189
 Old case of, with autopsy, 342
 Peach-root tea in, 238
 Rigor in, 169

- Epilepsy, treatment of, 211, 271, 296
 Trephining in, 62
 Epithelioma of male breast, 195
 Epulis in pregnancy, 429
 Ergot, after labor, 467
 as preventive of septicæmia, 388
 in dysentery, 154
 in gleet, 467
 in malarial poisoning, 156
 in nervous affections, 398
 in third stage of labor, 388
 Ergotine in bronchocele, 467
 Ergotinine in diabetes, 205
 Eruption, after traumatism, 510
 Arsenical, 267
 bromide, 558, 559
 Bullous, from potassium iodide, 469
 Iodic, 267
 Erysipelas, in infants, 205
 Laryngeal, 335
 Pilocarpine in, 264
 Resorcin in, 66
 Erythema syphiliticum, 428
 Erythema, polymorphous, 333
 Escharotics in granulations, 465
 Esmarch's bandage, hemorrhage after, 224
 Ether, and chloroform, 264
 inhalations in non-expansion of lung, 394
 in small-pox, 155
 spray for ataxic pains, 493
 Ethoxy-cafeine, 201
 Eucalyptol and tuberculosis, 493
 Eucalyptus in malaria, 299
 Eulypol, 393
 Eustachian catheter, disinfection of, 154
 syphilis from, 172
 Excision, of lower jaw, 221
 of tongue, 138, 413
 of wrist and ankle by new method, 33
 Exophthalmos, 512
 Exostosis closing ear, 185
 Extravasated blood, fate of, 345
 Eye, a new dressing for, 511
 Antiseptics in operations on, 140
 affection in herpes, 234
 Corrosive sublimate in surgery of, 324, 511
 Effect of electric light on, 514
 Foreign body in, 188
 Iodoform in diseases of, 139
 Iodol in diseases of, 256
 Lanolin in diseases of, 187
 Traumatism of, 514
 Eyes, grafting of, 145
 Transplantation of, 326, 328
 Eyeball, enucleation of, 287, 329
 Eyebrow, chancre of, 253
 Eyelid, chancre of, 142, 515, 516
 Eyelids, deficiency of, 515
 Facial spasm, 224
 Treatment of, 366
 Fashions in surgery, 218
 Fæcal, abscess, 69
 calculus, 363
 Fæcal impaction in baby of five months, 476
 Fallopian tube, rupture of, 416
 tubes, distension of, 230
 Faradism in extra-uterine pregnancy, 43
 Feculent contents of intestines, where do they become so? 431
 Fehling's test reduced by chloral, 562
 Felon, resorcin inoculation in, 552
 Femur, enchondroma of, 488
 Fever, cold applications to præcordia in, 386
 malarial, elements found in blood of, 375
 Peperine in, 467
 Phosphorated oil in, 468
 Puerperal, and its microbe, 425
 Prevention of, 425
 Typhoid, abscess of spleen in, 102
 Action of quinine in, 86
 and rheumatism, 518
 and septicæmia, 444
 Bacillus of, 375, 409
 Death in eight months from intestinal ulcers and renal disease after, 175
 folloewd by rheumatism, 562
 Kairin in, 301
 Multiple synovitis in, 443
 Osteitis in, 274
 Paraplegia from, 478
 Periostitis in, 274
 Quinine in, 352, 534
 Renal abscesses in, 363
 Sulphurous acid in, 210
 treated by corrosive sublimate, 119
 Use of hypodermics in, 111
 Yellow, and culex mosquito, 524
 Fevers, cold air in, 494
 Dietetics in, 362
 Fewer drugs, 57
 Fibrocystic tumor of parotid, 503
 Fibroma of vocal cord, 190
 Fingers, severed, reunion of, 503
 Fissure of anus, 239
 Fistula, vesico-vaginal, from coitus, 332
 Vulvo-rectal, from coitus, 332
 Flat-foot, causes and prevention of, 504
 Flesh wounds, treatment of, 381
 Fluorides of ammonia and iron, 260
 Foot, perforating ulcer, 239
 Formamidate of mercury, 81
 Formene as an anæsthetic, 303
 Fracture, base of cranium, 412
 Colles, 63
 of olecranon, 63
 of patella, 226, 279
 of skull, 59, 60, 62
 of thyroid cartilage, 138
 of zygoma, 176
 Fractures, of penis, 179
 of ribs from muscular contraction, 67
 Fractures, rapid method in, 279
 treated by mobilization and massage, 379
 Fringe-tree, 206
 Galium aparine, 431
 Galvano-cautery in diphtheria, 155
 Gangrene, malarial, 234
 of finger, 68
 of scrotum, 234
 Supra-diaphragmatic, 176
 Gaseous remedies in rectum, 431
 Gastrostomy, 33
 for hair in stomach, 68
 Gelosine, 298
 Gelsemin, poisoning by, 304
 Genito-urinary disease causing endocarditis, 124
 Germicide value of some vegetable acids, 11
 Germitoxics as medicines, 301
 Gestation, ectopic, 231
 Glasses for improvement of vision, etc., limit of, 187
 Glaucoma, 328
 from cocaine, 512
 Gleet, ergot in, 467
 Glossitis, acute, 137
 Glottis, intubation of, 136
 Œdema of, jaborandi in, 466
 Glycosuria, acute febrile, 18
 Post-partum, 331
 Salicylic acid in, 259
 Golden seal, 206
 Gonococcus, urethritis without, 523
 Gonorrhœa, treatment by grooved bougies, 130
 treated by kava-kava, 259
 Treatment of, 223
 Gout, and albuminuria, 311
 Pathology of, 520
 Saturnine, 339
 Skin diseases in, 510
 Grafting, ocular, 145, 326
 Granulations, escharotics in, 465
 treated by crushing, 423
 Gumma of larynx, 334
 Gummata of lips, 516
 Precocious, 427
 Gums, diphtheria of, 212
 Gunshot wounds, 34, 189
 Gynecology, hot and cold water in, 487
 Hæmarthrosis of knee, 279
 Hæmatic changes from bisulphide of carbon, 402
 Hæmophilia without heredity, 17
 Hair, large mass of, in stomach, 68
 Hairdye as a poison, 558
 Hamamelis virginica, 263
 Hatter's consumption, 278
 Hay-fever, 134, 135
 Heal, malignant refusal to, 521
 Headache, in school-children, 272
 Recurrent, 97
 relieved by antipyrin, 493
 Heart, dilatation and hypertrophy of, 16
 Dilatation of, at puberty, 252

- Heart, diseased, a cause of habitual abortion, 182
 disease, remedies in, 158
 Enchondroma of, 488
 Escape of, into left pleura, 520
 Hydatid cyst of, rupture, death, 125
 Malformation of, 125
 Malt liquors in functional disturbance of, 261
 Movements of, photographed, 538
 Paralytic ataxia of, 497
 Right side of, new method of estimating condition of, 253
 Rupture of, 190, 218
 Temporary dilatation of, 346
 Tremulous paresis of, 308
 Valvular disease of, long free from serious symptoms, 363
 Heavy oil of wine, 357
 Hemorrhage, abdominal, during menstruation, 175
 Abortive, 426
 after Esmarch's bandage, 224
 and syphilis, 124
 Intra-cranial, 276
 Post-partum, 229
 Uterine, 157, 180
 Venesection in, 143
 Hemorrhoids, treatment of, 419
 Hemi-rheumatism, 273
 Hernia, cerebri, 59, 60
 cured by bubo, 382
 Persian treatment of, 317
 Herpes, facialis, 234
 Thermo-cautery in, 493
 zoster, and paralysis, 171
 frontalis, 525
 Hiccough, 10
 from needles in stomach, 476
 Treatment of, 273
 Homatropine, hydrobromate, 348, 383
 Hopeine as an hypnotic, 85
 Hot baths, and pneumonia, 494
 hot packs, and pilocarpine, 299
 in renal disease, 492
 Humerus, luxation of, 65
 Hydatid cyst of heart, rupture, death, 125
 Hydrargyrum formamidatum, 81
 Hydrastin, action of, 262, 263
 Hydrastis canadensis, 206
 Hydrocele, accident in tapping, 380
 Radical cure of, 377
 Treatment of, 92
 Hydrochloric acid, externally in biliousness, 233
 poisoning, 361
 Hydrofluoric acid, 4, 394
 Hydrogen peroxide, 32, 427
 Hydronaphthol, 31
 Hydrophobia, autopsy in, 274
 Mortality from, 167
 virus, preparation of, 78
 Hygiene of old age, 248
 Hymen, imperforate, 335
 Hyoscine, 1
 hydrobromate, 303, 433, 438
 poisoning, 402
 Hyoscyamine in chorea, 116
 Hyperpyrexia, post-mortem, 217
 Hypnone, 1
 Hypnotic, an, 433
 action, of canabinon, 85
 of urethane, 158
 power of hopeine, 85
 Hypodermic, flasks, 204
 method in anæmia, 303
 use of cathartics, 531
 use of iron, 394
 Hypodermics in typhoid fever, 111
 Hysterectomy, 87
 Ice-cream poisoning, 446
 Idiot boy, opium habit in, 265
 Ileo-cæcal region, surgery of, 505
 Impacted fæces as cause of melancholia, 560
 Incontinence of urine, belladonna in, 429
 in children, 112, 561
 treated by anodynes per rectum, 465
 Inebriates, home treatment of, 308
 Infection, purulent, 363
 Inflation in intestinal obstruction, 497, 498
 Infusion of salt solution, 180
 Inhalations, in pulmonary diseases, 156
 of belladonna, 155
 of blood, 119
 of cold air in enteric fever, 156
 of nitrogen, 205
 of oxygen in nervous diseases, 161
 Injection, intra-venous, of salt solution, 246
 Injections, intra-pulmonary, 81
 in phthisis, 268
 Insane, care of, 272
 Insanity, and phthisis, 311
 Cocaine in, 198
 Fecal impaction in, 560
 Premonitory symptoms of, 99
 Sedatives in, 500
 Treatment of, 368
 Washing out stomachs in, 462
 Intermittent fever, lemon in, 163
 Intestinal, antiseptis, 311
 calculus, 497
 casts, 374
 contents, where do they become feculent, 431
 injury and abscess, 521
 lesions, from drastic poisons, 257
 of corrosive sublimate, 495
 movements photographed, 538
 obstruction, 498
 perforation, 69
 Intra-cranial, cephalhæmatoma, 94
 hemorrhage, 276
 Intra-venous injection of salt solution, 246
 Intubation of glottis, 136
 Intussusception, 498
 in children, 316
 Inversion of uterus, 183
 Iodic eruption, 267
 Iodic purpura, 207
 Iodide of potassium in spasmodic asthma, 196
 Iodine, relief of irritation from, 489
 Iodized hydrogen-water for uric-acid diathesis, 492
 Iodoform, amblyopia from, 41
 collodion in gynæcology, 526
 in eye diseases, 139
 in polyuria, 462
 Odorless, 461
 Poisoning-by, 30, 470
 rash, 495
 Iodo-glycerine, as cause of paralysis, 225
 in spina-bifida, 225
 Iodol, 119
 in ocular therapeutics, 256
 Iris, piece of, living in vitreous chamber, 90
 Iritis, syphilitic hemorrhagic, 37
 Iron, and ammonia, fluorides of, 260
 citrate hypodermically in anæmia, 303
 Danger from continued large doses of, 460
 Effect of tincture of, on teeth, 359
 hypodermically, 394
 Irrigation in extraction of cataract, 140
 Irritants, chemical, and suppuration, 28
 Itch, prairie, 189
 Ivy poisoning, treatment of, 490
 Jaborandi in cedema of glottis, 466
 Jamaica dogwood, 304
 Jaw, immobility of, from fracture of zygoma, 176
 lower, removal of, through mouth, 221
 Necrosis of, 189
 Jejunostomy, 33
 Joints, diseases of, in animals, 74
 Jugular vein, tumor in, 219
 Jurisprudence of crime and responsibility, 406
 Kairin in typhoid fever, 301
 Kawa kawa, 162
 Kava-kava in gonorrhœa, 259
 Keratosis obturans, 184
 Kidney, abscess of, 319, 320, 322, 323
 Extirpation of, 315
 Hot baths in diseases of, 492
 Miliary abscesses of, 363
 Operation on, 505
 Rupture of, 177
 Single, and double uterus, 518
 single, carcinoma of, 278
 Kidneys, adenoma of, 17
 Diseased, a cause of habitual abortion, 182
 Diseases of, in typhoid fever, 175
 tubercular disease of, 69
 Knee, hæmarthrosis of, 279
 phenomenon, in nervous diseases, 270

- Knee, value of, in diagnosis, 405
 Rupture of synovial membrane of, 518
 Kola, 302, 357
- Labor, effect of, on temperature of mother and child, 43
 Protracted mechanical, 181
 Lachrymal gland, extirpation of, 138
 Lactation, abscess of breast and lymphangitis in, 29
 Lactic acid, local use of, 108
 injected for laryngeal phthisis, 552
 Lanolin, 153
 in ophthalmic practice, 187
 Value of, 255
 Laparotomy, for peritonitis, 414, 545, 547
 for extra-uterine pregnancy, 416
 in abdominal wounds, 129
 in Europe, 418
 Laryngeal phthisis, 45, 137
 vertigo, 428
 Laryngitis, membranous, 136
 Laryngotomy, 138, 281, 334
 Larynx, erysipelas of, 335
 Extirpation of, 233
 Gummatous disease of, 334
 Intubation of, 465
 Phthisis of, 552
 Pistol-shot wound of, 281
 Lateral curvature, 479
 Lead, paralysis, pathology of, 125
 poisoning, 471
 tremor, 165
 Lemon, decoction in intermittent fever, 163
 Decoction of, 107
 juice as caustic, 256
 Lens, dislocation of, 514
 Ossification of, 188
 Leucomaines, 370
 Lichen planus, 510
 Ligation of arteries for occlusion of veins, 67
 Lightning, strange effect of, 369
 Lipoma testis, 277
 Lipomata, fatty, 46
 Lip, chondroma of, 519
 Lips, gummata of, 516
 Liquor potassii arsenitis, 356
 Lithæmia, relation of, to nervous symptoms, 92
 Lithia, salicylate of, 9
 Litholapaxy, 506
 Lithotomy, 506
 Perineal, 35
 Supra-pubic, 453, 455
 Lithotripsy, cocaine in, 222
 Liver, a large, 315
 capsule, puncture of, 290
 Locomotor ataxia, 271
 Lung, abscess of, tapped and drained, 315
 Enchondroma of, 488
 Inhalation in diseases of, 156
 Non-expansion of, treated by ether inhalations, 394
 Resection of part of, 315
- Lung, surgery of, 504
 Lupus of ano-vulvar region, 419
 Lymphadenoma, 428
 Lymphangioma, cavernous, 238
 Lymphangitis during lactation, 29
- Malaria, epidemic of, 524
 Piperine in, 467
 treated by eucalyptus, 299
 Malarial fever and carbolic acid, 231
 Gangrene of scrotum, 234
 Germs in drinking-water, 524
 Infection, studies on, 410
 Poisoning treated by ergot, 156
 Male breast, cancer of, 195
 Malignant, disease, resection for, 279
 diseases, etiology of, 20
 refusal to heal, 521
 Mal perforant, 311
 Manganese in plants, 115
 Mania, acute, ophthalmic studies in, 430
 Manzanita, 490
 Marriage and syphilis, 126
 Martin, August, a morning with, 283
 Massage, effects of, 258
 in constipation, 258
 in intestinal obstruction, 498
 in nervous disease, 303
 Matches, poisoning by, 166
 Materia medica, practical, 58
 Maternal substitute, 184
 Mechanical action of drugs, 85
 Medicine-bibbing and physic-tipping, 256
 Megrim and epilepsy, 216
 Melancholia, early treatment of, 309
 treated by quebracho, 117
 Membrana tympani, artificial, 186
 New method to keep open perforation of, 186
 Ulceration of, 382
 Ménière's disease, 169
 Meningitis, and enucleation, 329
 Tubercular, 109
 Menstruation, fatal abdominal hemorrhage in, 175
 in monkeys, 500
 Persistent, 134
 Mercurialized blood serum, 81
 Mercurial ointment in pneumonia, 494
 Mercuric biniodide in obstetrics, 227
 Mercury, 462
 Albuminuria from, 166
 Bichloride of, in croup, 395
 Poisoning by, 12
 Methyl-chloride, 201, 493
 Microbe of puerperal fever, 425
 Microbes, from mother to foetus, 42
 Micro-organisms, and suppuration, 27
 in relation to tubercle, 14
 Microsporon furfur, 251
 Midwifery, antiseptics in, 227
 Milk, as a eliminator of arsenic, 143
- Milk, cow's, qualities of, 407
 poisoning, 449
 Mobilization and massage in fractures, 379
 Molluscum contagiosum, 509
 Morphia, susceptibility to, 237
 Morphine, changing into apomorphine, 303
 in convulsions, 160
 in infantile convulsions, 205
 Morrhual, 8
 Anti-strumous properties of, 302
 Mosquito and yellow fever, 524
 Mouth, affections of, treated by boric acid, 353
 Mumps, ocular affections in, 37
 Muscle and tendon reaction, 114
 Musk from water-melon vine, 462
 Mutilation, self-, 112
 Myalgia, 365
 Mycose fongioide, 428
 Mycotic nature of tuberculosis, 251
 Mydriatic action of homatropin, 349, 383
 Myrtol, 202
 Myxœdema, 560
 following thyroidectomy, 475, 517
 in aged woman, 273
 Pathology of, 337
- Nævus, ethylate of sodium in, 119
 Naphthalin, in helminthiasis, 397
 in urinary affections, 397
 Internal use of, 257
 Narceine, 356
 Nasal reflex to drugs, 549
 Naso-pharyngeal vegetations, 136
 Neck, tumors of, 503
 Necrosis from phosphorus, 189
 Needle swallowed, 430
 Needles, nidinized platina, 507
 Nephralgia, calculous, 216
 Nephrectomy, 322, 323
 Nephritis, nitro-glycerine in, 203
 from corrosive sublimate, 555
 Nephrolithotomy, 318
 Nephrotomy, 320, 505
 Double, 319
 and nephrectomy, 318, 321
 Nerve, facial, stretching, 381
 Nerve-stretching, 224
 Nervous, affections, ergot and cotton-root in, 399
 Ustilago maidis in, 399
 diseases, knee phenomenon in, 270
 treated by oxygen, 161
 Massage in, 303
 symptoms from lithæmia, oxaluria, and phosphaturia, 92
 system, effect of cocaine on, 400
 Syphilis of, 501
 Neural changes in rheumatism, 405
 Neuralgia, in diabetes, 70
 treated by sassafras, 83
 Trifacial, 201
 Neurectomy, 225
 Neuritis, alcoholic, 193
 in tabetics, 405

- Neuromata, multiple, after ovari-
 otomy, 329
 New Guinea, customs in sickness
 and childbed, 457
 Nickel, bromide of, 299
 Nicotinism, acute, 403
 Night palsy, 306
 Nitrate of silver, 161
 in ophthalmia, 511
 Nitric-acid fumes as cause of
 death, 472
 Nitrogen, inhalations of, 205
 Nitro-glycerine in chronic nephri-
 tis, 203
 Non-venereal syphilis, 126
 Nostrils, stone in, 142
 Nurses, tuberculous, and care of
 children, 520
 Nutmeg poisoning, 207
 Nutrition, effect of water on, 85
 Nux vomica, dosage of, 203

 Obstetrics, hot and cold water in,
 487
 Ocular affections, in mumps, 37
 therapeutics, sublimate in, 324
 grafting, 326
 paralysis, 36
 Oil, of wine, heavy, 357
 of wintergreen, poisoning by,
 122
 Ointments, method of applying,
 256
 Old age, hygiene of, 248
 Olecranon, fracture of, 63
 Oleum thujæ, action and constitu-
 ents of, 7
 Ophthalmia, contagious, 141
 Nitrate of silver in, 511
 Ophthalmic studies in acute mania,
 430
 Ophthalmitis, sympathetic, 328
 Ophthalmology, some aphorisms
 in, 330
 Opium, habit in idiot boy, 265
 in small-pox, 155
 poisoning, 13
 Orbital aneurism, 177
 Orbit, permanent closure of, 515
 Removal, of splinter from, 235
 of tumor from, 513, 514
 Thrust wounds of, 411
 Orbits, tumors of, 74
 Orchitis, treatment of, 380
 Os calcis, osteoma of, 519
 Osseous tumors, ear, 185
 Ossification, of choroid, 188
 of lens, 188
 Osteitis, typhoid, 274
 Osteoma of os calcis, 519
 Ovarian tumor, tapping of, 189
 Ovaries, dermoid cyst of, 426
 Ovariectomy, attempt at, 284
 during peritonitis, 182
 followed by peritonitis, 545
 Multiple neuromata after, 429
 Parotitis after, 331
 Ovary expelled from anus, 229
 Oxalic acid, as an emmenagogue,
 261
 Poisoning by, 123, 305

 Oxaluria, relation of to nervous
 symptoms, 92
 Oxygen in nervous diseases, 161

 Palatable prescribing, 204
 Palate, paralysis of, 236
 Palato-pharyngeal adhesions, 135
 Palsy, night, 306
 Pancreas, surgery of, 282
 Pancreatic hemorrhage, sudden
 death, 541
 Pancreatine, fate of in stomach,
 551
 Panophthalmitis, fatal, 329
 Papain, 118
 in dyspepsia, 202
 Papillomatous cysts, 43
 Paracentesis pericardii, 441
 Paraffinum molle, poisoning by,
 124
 Paraldehyde, 3
 as antidote to strychnine, 203
 Paralysis,
 alcoholic, 209
 and herpes, 171
 from iodo-glycerine, 225
 Infantile, 399
 Lead, pathology of, 125
 Ocular, 36
 of tongue, palate, and vocal
 cord, 236
 Toxic, 209
 Uræmic, 306
 Paralytic ataxia of heart, 497
 Paraplegias from typhoid fever,
 478
 Parasite in scrotal concretions, 409
 Parasitic affection of childhood,
 new, 404
 Paresis of heart, 308
 Parotid region, tumor of, 503
 Parotitis after ovariectomy, 331
 Patella, fracture of, 226, 279
 Patent-medicine evil, 481
 Peach-root tea in epilepsy, 238
 Peat powder as surgical dressing,
 220
 Pelvic abscess, 132
 P'emp'higus of conjunctiva, 422
 Penis, deformity of, 173
 Fractures of, 179
 Retraction of, 506, 507
 Peppers, tincture of, 160
 Pepsin, safety of in lesions of ali-
 mentary canal, 551
 Perflation in empyema, 364
 Perforation, duodenal, 174
 Perforating ulcer of foot, 239
 Pericardium, incomplete, 520
 Paracentesis of, 441
 Perineum, laceration of, 230
 Rupture of, from coitus, 332
 torn, operation for, 527
 Tumor in, 281
 Periostritis in typhoid fever, 274
 Peritoneal, cavity, cautery tip in,
 183
 Effusion as a cause of tricuspid
 regurgitation, 167
 Peritoneum, toilette of, 414
 Peritonitis, after ovariectomy, 545

- Peritonitis, ovariectomy during, 182
 Suppurative, laparotomy, 414,
 544
 Perityphilitis, treated with ice, 363
 Perlèche, 404
 Permanganate of potassium, in am-
 enorrhœa, 114, 115
 in carbuncle, 256
 poisoning, 402
 Peroxide of hydrogen, 32
 poisoning, 496
 Persistent menstruation, 134
 Pertussis, treatment of, 214
 Pessaries; are we justified in using
 them? 132
 Phagedena in inguinal chancre, 515
 Pharynx, abnormal artery in, 335
 Phlebacteriæktasia, of foot, 149
 Phlegmon, subpectoral, in alcohol-
 ics, 520
 treated by resorcin inoculation,
 552
 Phosphates of lime, inutility of, 119
 Phosphaturia, relation of, to nerv-
 ous system, 92
 Phosphorated oil in malarial fever,
 468
 Phosphorus, effect of, on spinal
 cord, 124
 Necrosis from, 189
 Photographing the retina, 286
 Photography of viscera in motion,
 538
 Phthisis, and insanity, 311
 and shoulder-joint friction, 210
 Antiseptic treatment of, 249
 Contagiousness of, 145
 Hypertrophy of male, mammary
 gland in, 250
 in mill hands, 268
 Laryngeal, 45, 137, 552
 Prevention of, 268
 Psycho-neurotic affections in, 367
 Sensory troubles of, 18
 treated by, copper acetate, 355
 intra-pulmonary injections, 268
 Phytic-tipping and medicine-bib-
 bing, 256
 Physiological action and chemical
 constitution, 385
 Pichi, a new Chilian drug, 9
 Piliganine, 356
 Pilocarpine, 10, 299
 in erysipelas, 264
 Pine,-needle oil as styptic and anti-
 septic, 221
 wool as dressing, 221
 Piperine in malaria, 467
 Piper methysticum, 162
 Pityriasis rubra, 508
 Placenta, fatty, 426
 previa, 134, 180
 Pleuritic effusions, early removal
 of, 389
 Pneumatic cabinet, 301
 Pneumococcus, 475
 Pneumonia, and external violence,
 214
 and hot baths, 494
 and mercurial ointment, 494
 Contagiousness of, 314, 482

- Pneumonia, followed by abscess, 315
 followed by purulent infection, 290
 Infectious, 313
 Lobar, 151
 Treatment of, 301
 Unsettled problems in, 312
 Vaso-motor perturbation in the etiology of, 486
 Pneumonic origin of endocarditis, 474
 Pneumotomy, 504
 Poisoning, aconite, 121, 266
 Aniline pencil, 497
 Belladonna, 123, 165, 557
 Bichromate of potash, 86
 Butyl chloral and gelsemin, 304
 Camphor, 238
 Carbolic acid, 207
 Carbon bisulphide, 361
 Cocaine, 89
 Caffein, 12
 Chloroform, 165
 Corrosive sublimate, 555, 556
 Cosmetics, 305
 Cyanide of potash, 122
 Domestic, 403
 Eggs, 208
 Fumes of dynamite, 472
 Hair-dye, 558
 Hydrochloric acid, 361
 Ice-cream, 446
 Iodoform, 30, 470
 Ivy, 490
 Lead, 471
 Mercurial, 12
 Milk, 449
 Nutmeg, 207
 Oil of wintergreen, 122
 Opium, 13
 Oxalic acid, 123, 305
 Paraffinum molle, 124
 Permanganate of potassium, 402
 Peroxide of hydrogen, 496
 Rat bites, 359
 Rhamnus, 265
 "Rough on Rats", 13, 470
 Sassafras, 81, 188
 Sorrel, 305, 473
 Squills, 360, 472
 Strychnia, 559
 Subnitrate of bismuth, 207
 Tea, 201, 208
 Tobacco, 403
 Wax matches, 166
 Poisonous power of febrile urine, 217
 Poisons, drastic, intestinal lesions of, 257
 Postero-lateral sclerosis of cord, 517
 Post-partum hemorrhage, 229
 Post-mortem hyperpyrexia, 217
 Potassio-mercuric iodide, 31
 Potassium, bichromate, 401
 Poisoning, 86
 chloride, 263, 355, 466
 iodide, bullous eruption in, 469
 permanganate, baths, 116
 in amenorrhoea, 114, 115
 Potassium, in carbuncle, 256
 poisoning, 402
 Practical materia medica, 58
 Præcordial cold in fever, 386
 Prairie itch, 189
 Precocious gummata, 427
 Pregnancy, and abdominal aneurism, 425
 and rheumatism, 143
 and tuberculosis, 87
 Epulis in, 429
 Extra-uterine, 284, 416
 changed to intra-uterine by faradism, 43
 Infallible sign of, 42
 Prescribing, palatable, 204
 Preservation of dead bodies, 525
 Proptosis, case of, 36
 Prostate, obstructing, treatment of, 54
 Prostatitis, acute, with hyaline cylinders, 76
 Pruritus, after cerebral embolism, 333
 from carbolic acid, 556
 vulvæ, 196
 Psoriasis, notes on, 508
 Psycho-neurotic affections in phthisis, 367
 Ptomaines, 370
 Puberty, early, 113
 Puerperal, convulsions, 284
 eclampsia, and Bright's disease, 231
 treatment of, 93
 fever microbe, 425
 Pulmonary, diseases, inhalations in, 156
 Paralysis of the recurrent nerve in, 71
 tuberculosis, and eucalyptol, 493
 Direct treatment of, 269
 vein, tuberculosis of, 376
 Purpura, corrosive sublimate in, 462
 hemorrhagica without heredity, 17, iodic, 207
 Purulent infection, 363
 Pyæmia after pneumonia, 290
 Pyelo-nephritis, operation for, 505
 Pyonephrosis, 319, 320
 Pyridine in the treatment of asthma, 147
 Pyrogallie acid, 204
 Quebracho, bark, white, 261
 in melancholia, 117
 Quillaia bark, 120
 Quinine, effect of, on red blood-corpuscles, 195
 idiosyncrasy, 121
 Inefficiency of, in malarial fever, 231
 in chronic dysentery, 259
 in irritable stomach, 116
 Intolerance of, 232
 in sciatica, 237
 in typhoid fever, 86, 352, 534
 in whooping-cough, 395, 396
 Rare effects of, on skin, 469
 Vehicle for, 489
 Rabies, autopsy in case of, 274
 Mortality from, 167
 Rachitis, cause of, 71
 Rash from iodoform, 495
 Rat bites, poisoning by, 359
 Raynaud's disease, 74
 Rectal, alimentation, 293
 case, unique, 179
 Rectum, injection of gaseous remedies into, 431
 Tumor of, 374
 Recurrent nerve, paralysis of, 71
 Reduction of Fehling's test by chloral, 562
 Reflex, nasal, 549
 Refrigeration in typhoid fever, 257
 Remedies, forgotten and neglected, 438
 Remote effects of, 404, 429
 Renal, calculus, 318, 319
 tuberculosis, 69
 Repositor, sigmoid, 183
 Resection, of bone for malignant disease, 279
 of vermiform appendix, 414
 Resorcin in erysipelas, 66
 in eczema, 553
 in phlegmon, 552
 in whooping-cough, 500
 Rest in treatment of scrofulous neck, 298
 Retina, detachment of, 511
 Embolism of, 141
 Photographing the, 186
 Retinitis, diabetic, 89
 Exudative, in Bright's disease, 382
 Retraction of penis, 506
 Retrograde catheterization, 506
 Reunion of severed digits, 503
 Rhamnus frangula, poisoning by, 265
 Rheumatics, simple arthritis in, 523
 Rheumatism, acute, causing and curing epilepsy, 189
 and pregnancy, 143
 and typhoid fever, 518
 Cerebral, treated by tepid baths and large doses of chloral, 86
 chronic, neural changes in, 405
 followed by typhoid fever, 563
 One-sided, 273
 treated by salicylate of lithia, 9
 Rheumatoid arthritis, treatment of, 170
 Rhinolith, case of, 142, 190
 Rigor in an epileptic, 169
 Ringworm of scalp, 127
 Rose cold from artificial rose, 134
 "Rough on Rats" poisoning, 13, 470
 Rubber, prevention of deterioration of, 553
 Rupture, of heart, 190, 218
 of kidney, 177
 of spleen, 410
 of uterus, 181
 Saccharin, 347

- Sacro-iliac injuries, diagnosis of, 66
- Salicylate of soda in diarrhoea, 463
- Salicylic acid in diabetes, 259
- Salivary calculus, 173
- Salol, 351
- Salt, in Bright's disease, 354
solutions, intra-venous injection of, 246
- Sarcoma, of orbit, 513, 514
of testicle, 131
- Sassafras, in neuralgia, 83
Toxic effects of, 81, 188
- Saturnine gout, 339
- Sawdust, bichloride, 92
- Scalp, lotion for, 235
Ringworm of, 127
- Scarlatina after traumatism, 510
- Sciatica, quinine in, 237
- Scleroderma, 508
- Sclerotic and choroid, spongy formation between, in babies, 424
- Scrofulous neck, rest in treatment of, 298
- Scrotal concretions, parasite in, 409
- Scrotum, avulsion of, 380
Gangrene of, 234
- Scutellaria, 10
- Sedatives in insanity, 500
- Self-mutilation, persistent, 112
- Senile testicle, 217
- Sensory aphasia, 377
- Septicæmia, and typhoid, 444
prevented by ergot, 388
- Sex, determination of, 391
- Sexual organs and tonsils, 319
- Sheep-infesting amoebæ, 80
- Shoulder-joint friction and phthisis, 210
- Sight, restoration of, by fall, 514
- Sigmoid flexure, ulceration of, 418
- Silver nitrate, 161
in cystitis, 465
in purulent ophthalmia, 511
- Singultus, treatment of, 273
- Skin, atrophy of, 507
Bronzing of, from arsenic, 334
Carcinoma of, 509
Colloid degeneration of, 235
diseases, arsenic in, 334
in gout, 510
Pyrogallic acid in, 204
Relation of, to other organs, 236
Effects of quinine on, 469
Linear atrophy of, 127
Tuberculosis of, 509
- Skull, cpd. depressed fracture of, 59, 60
Fracture of, 60, 62
base of, 412
- Small-pox, 155
Repeated vaccination in, 429
- Soda, salicylate of, 10
- Sodium chloride, dry, in subinvolution, 526
in Bright's disease, 354
- Sodium ethylate in nævus, 119
- Solanine as an analgesic, 489
- Solanum paniculatum, 356
- Sorrel poisoning, 305, 473
- Sparteine, 6
- Spasm, facial treatment of, 366
- Spermatorrhœa, 499
- Sphacelic acid in acute rosacea, 256
- Spina bifida, iodo-glycerine in, 225
Spontaneous cure of, 74
- Spinal cord, effect of phosphorus and arsenic on, 124
- Spinal tumors, diagnosis of, 172
- Spleen, abscess of, 102
Extirpation of, 211
Function of, 211
Rupture of, 410
- Spleens, pathological, 217
- Spongy formation between sclerotic and choroid in babies, 424
- Sprains, treatment of, 380
- Squills, poisoning by, 360, 472
- Stannous chloride as disinfectant, 237
- Sterility, belladonna in, 397, 526
female, ethics of, 286
- Stomach and colon, communication between, 277
Artificial, 293
Perforating ulcer of, opening into heart, 103
- Stomach-tube in obstinate vomiting, 71
- Stone in nostrils, 142
- Strabismus, convergent, operation for, 139
- Stretching of facial nerve, 381
nerves, 224
- Strychnia, in alcoholism, 158
in uterine hemorrhage, 117, 157
antagonized by urethan, 261
Antidote to, 203
poisoning, 559
- Subluxation of ulna, 64
- Subpectoral phlegmon in alcoholics, 520
- Sudden death, pancreatic hemorrhage, 541
- Sulphur causing brown skin, 427
- Sulphurous acid in typhoid fever, 210
- Suppositories, nutrient, 11
- Suppuration, and micro-organisms, 27
caused by chemicals, 28
- Suprapubic lithotomy, 453, 455
- Surgery, cerebral, 49, 59, 60
Fashions in, 218
- Surgical diseases, bacteria in, 277
- Sympathetic ophthalmitis, 328
- Synovial membrane of knee, rupture of, 518
- Synovitis, multiple, in typhoid fever, 443
symmetrical, in syphilis, 172
- Syphilis acquired after conception, 77
albuminuria from, 166
and hemorrhage, 124
and marriage, 126
Contagious stage of, 126
- Syphilis, evolution of, 209
from Eustachian catheter, 172
Hereditary, 172
Enlargement of wrist in, 35
Natural history of, 127
Non-venereal, 126, 253
of cornea, 515
of larynx, 334
of nervous system, 501
of tongue, 335
Symmetrical synovitis in, 172
treated by hydrarg. formamidatum, 81
treated by mercurialized blood serum, 81
Urethral discharge in, 36
- Syphilitic, chorea, 368
epididymitis, 69
erythema, 428
iritis, 37
- Sweating, unilateral
- Tabes, combined, 517
Neuritis in, 405
- Tampons, vaginal, boracic acid in, 527
- Tannic acid, idiosyncrasy with, 358
- Tapeworm, 464
expelled from mouth, 188
- Tapping ovarian tumor, 189
- Tea, poisoning by, 201, 208
- Teeth, effect of iron on, 359
- Tendon, transplantation of, 502
- Terebene, 7
and fermentation, 352
- Terpene, 7
- Testicle, sarcoma of, 131
Senile, 217
- Testis, lipoma of, 277
- Tetanus, and trismus, 71
cured, 157
Etiology of, 26
- Tetany and tetanilla, 501
- Thallin, action of, 156, 232, 459
- Theine, 3
Analgesic action of, 199
- Thermic action of cold water, 352
- Thermo-cautery in herpes, 493
- Thigh, emphysematous abscess of, 521
- Threadworms in children, 499
- Thrombosis, of ulnar artery, 68
simulating tubercle, 376
- Thrust wounds in orbit, 411
- Thuja, oil of, 7
- Thujæ occidentalis, 204
- Thumb, dislocation of, 64
- Thyroid, cancerous, extirpation of, 63
cartilage, fracture of, 138
Functions of, 62
- Thyroidectomy, 337
followed by myxœdema, 517
- Tin, action of, 295
Chloride of, as disinfectant, 237
- Tobacco, as a cause of amblyopia, 142
Effect of, on mind, 497
poisoning, 403
- Tongue, angioma under, 45
Excision of, 138, 281

- Tongue, excision of, entire, 413
 Gumma of, 335
 Paralysis of, 236
 Tubercular ulcer of, 504
 Tonsillitis, croupous, *versus* diphtheria, 269
 Tonsils and sexual organs, 519
 Toxic paralyses, 209
 Trachea, tumor in, 383
 Trachoma treated by crushing the granulations, 423
 *Traumatism, eruptions after, 510
 Trephining, 59
 in epilepsy, 62
 Tribromide of allyl, 394
 Trichinosis, 109
 Tricuspid regurgitation, 167
 Trigger finger, 310
 Tubercle, direct infection of, 520
 of kidney, 69
 Relations of micro-organisms to, 14
 simulated by thrombosis, 376
 Tubercular, meningitis, 109
 ulcer of drum of ear, 382
 ulcer of tongue, 504
 Tuberculosis, acute, 376
 and cold abscesses, 37
 and eucalyptol, 493
 and pregnancy, 87
 arrested by emphysema, 267
 Direct treatment of, 269
 Mycotic nature of, 251,
 of pulmonary vein, 376
 of skin, 509
 treated by hydrofluoric acid, 394
 Tuberculous nurses and children, 520
 sputa, disinfection of, 15
 Tumor, conjunctival, containing hair, 286
 in jugular vein, 219
 in perineum, 281
 Intra-tracheal, 383
 of orbits, 74
 of parotid, 503
 of rectum, 374
 ovarian, tapping of, 189
 removed from orbit, 513, 514
 Tumors, multiple, fatty, 46
 Osseous, of ear, 185
 of brain, treatment of, 390
 of neck, 503
 spinal, diagnosis of, 172
 Tuning-fork in diagnosis, 186
 Turpentine in liniments, 85
 Typhoid fever, and rheumatism, 518
 Renal abscesses in, 363
 Treatment of, 156
 Typhoid lesion, refrigeration in, 257
 Tyrotoxicon, in poisonous ice-cream, 446
 in poisonous milk, 449
 Twin gestation, 87
- Ulceration, intestinal, in typhoid fever, 175
 of Bartholin's gland simulating chancroid, 516
 of sigmoid flexure, 418
 Ulcer, of stomach opening into heart, 103
 Perforating, of foot, 239
 Trophic, of cornea, 234
 Tubercular, of drum of ear, 382
 of tongue, 504
 Ulcers of bladder, 420
 Ulnar artery, thrombosis of, 68
 Ulna, subluxation of, 64
 Uræmic paralysis, 306
 Urea, and bile, 363, 479
 Source of, 277
 Ureter, acute obstruction of, 319
 Diphtheritic cast from, 75
 Urethan, action of, 158
 as antagonist to strychnine, 261
 in chorea, 271
 Urethra, chancre of, 35
 female, rupture of, during coitus, 335
 Urethral discharge in secondary syphilis, 36
 Urethritis, and chancroid, 222
 Treatment of, by soluble bougies, 300
 without gonococcus, 523
 Urinary affections, naphthalin in, 397
 incontinence in children, 465, 561
 Urine, different elements of, 75
 Extravasation of, 420
 febrile, toxic power of, 217
 of high specific gravity, 166
 Uro glaucin, 406
 Ustilago Maidis, 399
 Uterine, affections, treated by cauterization, 465
 appendages, danger of diseases of, in childbed, 382
 Diseases of, 228
 hemorrhage, 157
 Strychnine in, 117
 Uterus, double, and single kidney, 518
 Inversion of, 183
 Rupture of, 181
 Subinvolution of, 526,
- Vaccination, repeated, in small-pox, 429
 Vagina, rupture of, 332
 Vaginæ ostium, congenital absence of, 285
 Vaginal injections in parturient women, 226
 touch in ascites, 500
 Vaginitis from red ants, 331
 Valvular disease long free from serious symptoms, 363
 Vanilline, action of, 299
 Varicocele, 179
- Varicose veins, 224
 and carbolic acid, 504
 Variola, 155
 Confluent, salicylate of soda in, 10
 Vein, jugular, tumor in, 219
 Pulmonary, tuberculosis of, 376
 Veins, occlusion of, 67
 Venesection, in hemorrhage, 143
 Plea for, 461
 Veratrum viride, 400
 Vermiform appendix, perforation of, 414, 520
 Vertigo treated by blisters, 400
 Vertebral arteries, ligation of, 479
 Vesical, calculi, fracture of, 126
 calculus, 35
 sloughing out, 178
 Violinist's cramp, 233
 Viscera, malposition of, 76
 Vitreous body, the artificial, 38
 Foreign bodies in, 423
 Vocal cord, fibroma of, 190
 Paralysis of, 236
 Vomiting, obstinate, cured by stomach-tube, 71
- Washing out stomachs of lunatics, 462
 Water at different temperatures in gynecology, 487
 Drinking, of sawdust cities, 86
 Effect of, on nutrition, 85
 Extension of malaria by, 524
 for babies, 498
 Watermelon vine as a source of musk, 462
 Whooping-cough, amyl nitrite in, 466
 Cautery in, 466
 Cocaine in, 551
 Quinine in, 395
 Resorcin in, 500
 Treatment of, 214, 396
 Wintergreen oil, poisoning by, 122
 Witch hazel, 263
 Wolpert's air-tester, 408
 Wool as surgical dressing, 549
 Woolen clothing for old people, 494
 Worms in children, 499
 Wounds, abdominal, 129
 flesh, treatment of, 381
 Gunshot, 34, 189
 New surgical dressing for, 66
 Wrist, enlargement of, in hereditary syphilis, 35
 Excision of, 33
- Yellow fever and mosquito, 524
 Yerba santa as carrier for quinine, 489
 Zinc, hydrated sulphide of, 231
 paint in erysipelas, 205
 Zygoma, fracture of, 176

3 gal

259

